NP 63

RECORD OF AMENDMENTS

The table below is to record Section IV Notice to Mariners amendments affecting this volume.
Sub paragraph numbers in the margin of the body of the book are to assist the user with these amendments.

Weekly Notices to Mariners (Section IV)

2005	2006	2007	2008

IMPORTANT – SEE RELATED ADMIRALTY PUBLICATIONS

This is one of a series of publications produced by the United Kingdom Hydrographic Office which should be consulted by users of Admiralty Charts. The full list of such publications is as follows:

> Notices to Mariners (Annual, permanent, temporary and preliminary), Chart 5011 (Symbols and abbreviations), The Mariner's Handbook (especially Chapters 1 and 2 for important information on the use of UKHO products, their accuracy and limitations), Sailing Directions (Pilots), List of Lights and Fog Signals, List of Radio Signals, Tide Tables and their digital equivalents.

All charts and publications should be kept up to date with the latest amendments.

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NP 63

PERSIAN GULF PILOT

The Persian Gulf and its approaches from Ra’s al Junayz, in the south–west, to Gwatār Bay in the east

THIRTEENTH EDITION
2005

PUBLISHED BY THE UNITED KINGDOM HYDROGRAPHIC OFFICE

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7th Edition	1924
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9th Edition	1942
10th Edition	1955
11th Edition	1967
12th Edition	1982

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PREFACE

The Thirteenth Edition of Persian Gulf Pilot has been prepared by Captain N.B. Bamford RD, Master Mariner. The United Kingdom Hydrographic Office has used all reasonable endeavours to ensure that this Pilot contains all the appropriate information obtained by and assessed by it at the date shown below. Information received or assessed after that date will be included in *Admiralty Notices to Mariners* where appropriate. If in doubt, see *The Mariner's Handbook* for details of what *Admiralty Notices to Mariners* are and how to use them.

This edition supersedes the Twelfth Edition (1982) and supplement No 8 (2001), which are cancelled.

Information on currents has been based on data supplied by the Met Office, Exeter.

The following sources of information, other than UKHO Publications and Ministry of Defence papers, have been consulted:

Local Port Authorities
Port Handbooks produced by Port Authorities
Fairplay Ports Guide 1999–2000
Ports of the World 1999
Lloyds Maritime Guide 1997
Whitaker's Almanack 1999
Lloyds List

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EXPLANATORY NOTES

Admiralty Sailing Directions are intended for use by vessels of 150 gt or more. They amplify charted detail and contain information needed for safe navigation which is not available from Admiralty charts, or other hydrographic publications. They are intended to be read in conjunction with the charts quoted in the text.

This volume of the Sailing Directions will be kept up-to-date by the issue of a new edition at intervals of approximately 3 years, without the use of supplements. In addition important amendments which cannot await the new edition are published in Section IV of the weekly editions of *Admiralty Notices to Mariners*. A list of such amendments and notices in force is published quarterly. Those still in force at the end of the year are reprinted in the *Annual Summary of Admiralty Notices to Mariners*.

This volume should not be used without reference to Section IV of the weekly editions of Admiralty Notices to Mariners.

CD–ROM

Status. A compact disc is provided at the back of this volume. The paper publication of Sailing Directions satisfies the requirements of Chapter V of the International Convention for the Safety of Life at Sea. The CD version does not satisfy these requirements and should only be used in conjunction with the paper publication and any amendments affecting the paper publication. Where any discrepancy exists between data on the CD and in the paper publication of Sailing Directions, the paper publication (inclusive of amendments) is to be relied upon.

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References to hydrographic and other publications

The Mariner's Handbook gives general information affecting navigation and is complementary to this volume.

Ocean Passages for the World and *Routeing Charts* contain ocean routeing information and should be consulted for other than coastal passages.

Admiralty List of Lights should be consulted for details of lights, lanbys and fog signals, as these are not fully described in this volume.

Admiralty List of Radio Signals should be consulted for information relating to coast and port radio stations, radio details of pilotage services, radar beacons and radio direction finding stations, meteorological services, radio aids to navigation, Global Maritime Distress and Safety System (GMDSS) and Differential Global Positioning System (DGPS) stations, as these are only briefly referred to in this volume.

Admiralty Maritime Communications is a comprehensive guide on all aspects of maritime communications for the yachtsman and small craft user. It provides general information on Global Maritime Distress and Safety System (GMDSS), the management of VHF, Maritime Safety Information, NAVTEX, Inmarsat and Radio Facsimile, and detailed information and procedures for marinas and harbours used by small craft.

Annual Summary of Admiralty Notices to Mariners contains in addition to the temporary and preliminary notices, and amendments and notices affecting Sailing Directions, a number of notices giving information of a permanent nature covering radio messages and navigational warnings, distress and rescue at sea and exercise areas.

The International Code of Signals should be consulted for details of distress and life-saving signals, international ice-breaker signals as well as international flag signals.

Remarks on subject matter

Buoys are generally described in detail only when they have special navigational significance, or where the scale of the chart is too small to show all the details clearly.

Chart index diagrams in this volume show only those Admiralty charts of a suitable scale to give good coverage of the area. Mariners should consult NP 131 *Catalogue of Admiralty Charts and Publications* for details of larger scale charts.

Chart references in the text normally refer to the largest scale Admiralty chart but occasionally a smaller scale chart may be quoted where its use is more appropriate.

Firing, practice and exercise areas. Submarine exercise areas are mentioned in Sailing Directions. Other firing, practice and exercise areas maybe mentioned with limited details. Signals and buoys used in connection with these areas maybe mentioned if significant for navigation. Attention is invited to the Annual Notice to Mariners on this subject.

Names have been taken from the most authoritative source. When an obsolete name still appears on the chart, it is given in brackets following the proper name at the principal description of the feature in the text and where the name is first mentioned.

Tidal information relating the daily vertical movements of the water is not given; for this *Admiralty Tide Tables* should be consulted. Changes in water level of an abnormal nature are mentioned.

Time difference used in the text when applied to the time of High Water found from the *Admiralty Tide Tables*, gives the time of the event being described in the Standard Time kept in the area of that event. Due allowance must be made for any seasonal daylight saving time which may be kept.

Wreck information is included where drying or below-water wrecks are relatively permanent features having significance for navigation or anchoring.

Units and terminology used in this volume

Latitude and Longitude given in brackets are approximate and are taken from the chart quoted.

Bearings and directions are referred to the true compass and when given in degrees are reckoned clockwise from 000° (North) to 359°
Bearings used for positioning are given from the reference object.
Bearings of objects, alignments and light sectors are given as seen from the vessel.
Courses always refer to the course to be made good over the ground.

Winds are described by the direction from which they blow.

Tidal streams and currents are described by the direction towards which they flow.

Distances are expressed in sea miles of 60 to a degree of latitude and sub-divided into cables of one tenth of a sea mile.

Depths are given below chart datum, except where otherwise stated.

Heights of objects refer to the height of the object above the ground and are invariably expressed as "... m in height".

Elevations, as distinct from heights, are given above Mean High Water Springs or Mean Higher High Water whichever is quoted in *Admiralty Tide Tables*, and expressed as, "an elevation of ... m". However the elevation of natural features such as hills may alternatively be expressed as "... m high" since in this case there can be no confusion between elevation and height.

Metric units are used for all measurements of depths, heights and short distances, but where feet/fathoms charts are referred to, these latter units are given in brackets after the metric values for depths and heights shown on the chart.

Time is expressed in the four-figure notation beginning at midnight and is given in local time unless otherwise stated. Details of local time kept will be found in *Admiralty List of Radio Signals Volume 2*.

Bands is the word used to indicate horizontal marking.

Stripes is the word used to indicate markings which are vertical, unless stated to be diagonal.

Conspicuous objects are natural and artificial marks which are outstanding, easily identifiable and clearly visible to the mariner over a large area of sea in varying conditions of light. If the scale is large enough they will normally be shown on the chart in bold capitals and may be marked "conspic".

Prominent objects are those which are easily identifiable, but do not justify being classified as conspicuous.

Home Contents Index

ABBREVIATIONS

The following abbreviations are used in the text:

AIS	Automatic Indentification System
ALC	Articulated loading column
ALP	Articulated loading platform
AMVER	Automated Mutual Assistance Vessel Rescue System
°C	degrees Celsius
CALM	Catenary anchor leg mooring
CBM	Conventional buoy mooring
CDC	Certain Dangerous Cargo
CVTS	Co–operative Vessel Traffic System
DF	direction finding
DG	degaussing
DGPS	Differential Global Positioning System
DW	Deep Water
DSC	Digital Selective Calling
dwt	deadweight tonnage
DZ	danger zone
E	east (easterly, eastward, eastern, easternmost)
EEZ	exclusive economic zone
ELSBM	Exposed location single buoy mooring
ENE	east-north-east
EPIRB	Emergency Position Indicating Radio Beacon
ESE	east-south-east
ETA	estimated time of arrival
ETD	estimated time of departure
EU	European Union
feu	forty foot equivalent unit
fm	fathom(s)
FPSO	Floating production storage and offloading vessel
FPU	Floating production unit
FSO	Floating storage and offloading vessel
ft	foot (feet)
g/cm^3	gram per cubic centimetre
GMDSS	Global Maritime Distress and Safety System
GPS	Global Positioning System
GRP	glass reinforced plastic
grt	gross register tonnage
gt	gross tonnage
HAT	Highest Astronomical Tide
HF	high frequency
HMS	Her (His) Majesty's Ship
hp	horse power
hPa	hectopascal
HSC	High Speed Craft
HW	High Water
IALA	International Association of Lighthouse Authorities
IHO	International Hydrographic Organization
IMO	International Maritime Organization
ITCZ	Intertropical Convergence Zone
JRCC	Joint Rescue Co–ordination Centre
kHz	kilohertz
km	kilometre(s)
kn	knot(s)
kW	kilowatt(s)
Lanby	Large automatic navigation buoy
LASH	Lighter Aboard Ship
LAT	Lowest Astronomical Tide
LF	low frequency
LHG	Liquefied Hazardous Gas
LMT	Local Mean Time
LNG	Liquefied Natural Gas
LOA	Length overall
LPG	Liquefied Petroleum Gas
LW	Low Water
m	metre(s)
mb	millibar(s)
MCTS	Marine Communications and Traffic Services Centres
MF	medium frequency
MHz	megahertz
MHHW	Mean Higher High Water
MHLW	Mean Higher Low Water
MHW	Mean High Water
MHWN	Mean High Water Neaps
MHWS	Mean High Water Springs
MLHW	Mean Lower High Water
MLLW	Mean Lower Low Water
MLW	Mean Low Water
MLWN	Mean Low Water Neaps
MLWS	Mean Low Water Springs
mm	millimetre(s)
MMSI	Maritime Mobile Service Identity
MRCC	Maritime Rescue Co-ordination Centre
MRSC	Maritime Rescue Sub-Centre
MSI	Marine Safety Information
MSL	Mean Sea Level
MV	Motor Vessel
MW	megawatt(s)
MY	Motor Yacht
N	north (northerly, northward, northern, northernmost)
NATO	North Atlantic Treaty Organization
Navtex	Navigational Telex System
NE	north-east
NNE	north-north-east
NNW	north-north-west
No	number
nrt	nett register tonnage
NW	north-west
ODAS	Ocean Data Acquisition System
PEL	Port Entry Light
PLEM	Pipe line end manifold
POL	Petrol, Oil & Lubricants
PSSA	Particularly Sensitive Sea Areas

Home Contents Index

RCC	Rescue Co–ordination Centre
RMS	Royal Mail Ship
RN	Royal Navy
Ro-Ro	Roll–on, Roll-off
RT	radio telephony
S	south (southerly, southward,southern, southernmost)
SALM	Single anchor leg mooring system
SALS	Single anchored leg storage system
SAR	Search and Rescue
Satnav	Satellite navigation
SBM	Single buoy mooring
SE	south-east
SPM	Single point mooring
sq	square
SS	Steamship
SSE	south-south-east
SSW	south-south-west
SW	south-west
teu	twenty foot equivalent unit
TSS	Traffic Separation Scheme
UHF	ultra high frequency
UKHO	United Kingdom Hydrographic Office
ULCC	Ultra Large Crude Carrier
UN	United Nations
UT	Universal Time
UTC	Co-ordinated Universal Time
VDR	Voyage Data Recorder
VHF	very high frequency
VLCC	Very Large Crude Carrier
VMRS	Vessel Movement Reporting System
VTC	Vessel Traffic Centre
VTMS	Vessel Traffic Management System
VTS	Vessel Traffic Services
W	west (westerly, westward, western, westernmost)
WGS	World Geodetic System
WMO	World Meteorological Organization
WNW	west-north-west
WSW	west-south-west
WT	radio (wireless) telegraphy

GLOSSARY

Glossary of words of Arabic origin used on charts and in this volume of Sailing Directions.

Arabic	*English*
abū	father, possessor of
abyaḑ	white
akhḑar	green
al	the (definite article)
‘alā’	height
a‘lá	higher, upper
arḑ	ground, earth, land
‘ayn	spring, well
azraq	blue
bāb	gate, narrow strait
baḩr	sea, large lake
band	embankment, dyke
bayḑā’	white
bū	abbreviation of abū
burj	tower, fort
dawḩat	bay, cove
fasht	rocky reef
ghār	cave
gharb	west
gharbī	western
ghubbat	deep–water bay or inlet
ḩadd	sandspit, low sandy point
ḩājj	one who has made the pilgrimage to Mecca
hajr	hump–backed tract of sand
ḩālat	dry or drying sandbank
ḩamrā’	red
ḩaşa	pebbles
hawr	shallow marsh (fresh or brackish)
hayr	pearl bank
ḩişār	fort
ibn	son, descendant
imām	religious leader, holy man
imārah	seat of a governor
jabal	hill, mountain
jazā’ir	plural of jazīrat
jazīrat	island, peninsula
kabīr	large, great
khaḑrā’	green

Arabic	*English*
khalīj	gulf, bay, estuary
khān	inn
khawr	arm of the sea, inlet, channel
kūt	fort, towr
maghrib	west
maraqqat	soft shoal
marsá	anchorage
mashriq	east
mīnā’	port anchorage
nahr	river, stream, canal
najwat	steep–to shoal, pearl bank, coral reef
naqā	large sand dune
qabr	tomb
qal‘at	castle, fort
qarn	isolated hill
qaşār	above–water rock, rocky islet
qaşr	castle, fort
qiţ‘at	rock, patch of rocks
ra’s	cape, point, peak
ruqq	reef, shoal, sandbank
ru’ūs	plural of ra’s
sadd	obstruction, barrier, dam
şaghīr	small
sayyid	descendant of the Prophet, lord, chief
sharq	east
shaţţ	broad stretch of river, estuary
shaykh	chief of a tribe, elder, religious leader
shi‘b	rocky shoal, inshore reef, branch of wadi
sīf, sīfat	coast, sandy beach, cove
sūq	market place
sūr	wall, rampart
tall	hill
turbat	tomb, cemetery
umm	mother of
wādī	watercourse, river–bed, valley
wālī	(local) governor
zarqā’	blue
zawr	bend, twist, turn

GLOSSARY

Glossary of words of Persian origin used on charts and in this volume of Sailing Directions.

Persian	*English*
āb	water, river, stream
ābrāh	water–course, aqueduct
–ābād	inhabited place
abū	father, possessor of
‘alā’	height
al‘á	upper, higher
bādgīr	wind–tower
baḩr	sea
band	barrier, dyke, embankment
bandar	harbour, sheltered anchorage, landing place
bīsīm	radio
bū	abbreviation of abū
borj	tower, fort
chegā	hill
damāgheh–ye	point
dar	passage, channel
daryā	sea, river
deh	village
dehān	river mouth
dezh	fort
emām	religious leader, holy man
–estān	place of, inhabited by
fānūs	lighthouse
forūdgāh	halting place, airfield
gharb	west
gharbī	western
gel	mud, clay
ḩājjī	one who has made the pilgrimage to Mecca
jazīreh	island, peninsula
janūbī	southern
kad	shoal
kalāt	castle on a mountain
kalleh	summit, peak
khāk	dust, earth, region
khalīj	gulf, bay, estuary

Persian	*English*
khān	inn
khāneh	house
khowr	arm of the sea, inlet, channel
kūh	hill, mountain
kūhhā	plural of kūh
kūt	fort, town
menār	tower, minaret, lighthouse
meydān–e tayyārāt	airfield
pol	bridge, viaduct
qabr	tomb
qal‘eh	castle, fort
qaryeh	village
qolleh	summit, hill–top
ra’s	cape, point, peak
reshteh	mountain range
rīg	sand, gravel
rūd	river
rūdkhāneh	river
rūstā	village
sabz	green
sar	peak, summit, point
–sār	place abounding in
seyyed	descendant of the Prophet, lord, chief
shāh	king
shahr	city, town
shamāl, shemāl	north
sharq	east
shaţţ	large fresh water river, estuary
sheykh	chief of a tribe, elder, religious leader
shīb	descent, slope
sīāh	black
sorkh	red
–stān	place of... inhabited by...
sūr	wall, rampart
tang	gorge, stream
tangeh	strait, isthmus, valley
torbat	tomb
–zār	place abounding in...
zīr	under, below

ROMANIZATION SYSTEM FOR ARABIC BGN/PCGN 1956 System

This system was adopted by the BGN in 1946 and by the PCGN in 1956 and has been applied in the systematic romanization of geographical names in Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, Tunisia, the United Arab Emirates and Yemen, all of which have been covered by published BGN gazetteers.

Uniform results in the romanization of Arabic are difficult to obtain, since vowel points and diacritical marks are generally omitted from both manual and machine writing. It follows that correct identification of the words which appear in any particular name, knowledge of its standard Arabic–script spelling including proper pointing, and recognition of dialectal and idiosyncratic deviations are essential.

In order to bring about uniformity in the Roman–script spelling of geographical names in Arabic–language areas, the system is based insofar as possible on fully pointed modern standard Arabic.

CONSONANT CHARACTERS

	Arabic				Romanization	Examples and Remarks	
	Final	Medial	Initial	Independent			
1				ء	not romanized in word-initial position	ابو كمال	Abū Kamāl
					’ in all other positions	بئر زيت	Bi’r Zayt [2]
						صنعاء	Şan‘ā’
2	ـا			ا	not romanized in word-initial position	ام العمد	Umm al ‘Amad [3]
3	ـب	ـبـ	بـ	ب	b	البحرين	Al Baḩrayn
4	ـت	ـتـ	تـ	ت	t	الكوت	Al Kūt [4, 5]
5	ـث	ـثـ	ثـ	ث	th	الثليثوات	Ath Thulaythuwāt [5]
6	ـج	ـجـ	جـ	ج	j	الجزيرة	Al Jazīrah
7	ـح	ـحـ	حـ	ح	ḩ	المحمودية	Al Maḩmūdīyah [6]
8	ـخ	ـخـ	خـ	خ	kh	خيبر	Khaybar [5]
9	ـد			د	d	دمنهور	Damanhūr [5]

	Arabic				Romanization	Examples and Remarks	
	Final	Medial	Initial	Independent			
10	ـذ			ذ	dh	ذهب	Dhahab [5]
11	ـر			ر	r	الروضة	Ar Rawḑah
12	ـز			ز	z	الزاوية	Az Zāwīyah
13	ـس	ـسـ	سـ	س	s	سليمانية	Sulaymānīyah [5]
14	ـش	ـشـ	شـ	ش	sh	الشام	Ash Shām [5]
15	ـص	ـصـ	صـ	ص	ş	قيصومة	Qayşūmah [6]
16	ـض	ـضـ	ضـ	ض	ḑ	ضور	Ḑawr [6]
17	ـط	ـطـ	طـ	ط	ţ	القنيطرة	Al Qunayţirah [6]
18	ـظ	ـظـ	ظـ	ظ	z̧	ابو ظبي	Abū Z̧aby [6]
19	ـع	ـعـ	عـ	ع	ʻ	ابو عريش	Abū ʻArīsh
20	ـغ	ـغـ	غـ	غ	gh	بغداد	Baghdād
21	ـف	ـفـ	فـ	ف	f	الفرات	Al Furāt
22	ـق	ـقـ	قـ	ق	q	قطر	Qaţar
23	ـك	ـكـ	كـ	ك	k	الكويت	Al Kuwayt [5]
24	ـل	ـلـ	لـ	ل	l	حلب	Ḩalab
25	ـم	ـمـ	مـ	م	m	مكة	Makkah
26	ـن	ـنـ	نـ	ن	n	نخل	Nakhl
27	ـه	ـهـ	هـ	ه	h	جبل هارون	Jabal Hārūn [4, 5]
28	ـو			و	w	وادي غضا	Wādī Ghaḑā
29	ـي	ـيـ	يـ	ي	y	اليمن	Al Yaman [2, 7]

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VOWEL CHARACTERS AND DIACRITICAL MARKS

	Arabic	Romanization	Examples and Remarks	
1	□َ	a	البصرة	Al Başrah
2	□ِ	i	الرياض	Ar Riyāḑ
3	□ُ	u	القدس	Al Quds
4	□َا	ā	باب المندب	Bāb al Mandab [3]
5	□ِي	ī	المدينة	Al Madīnah
6	□ُو	ū	صور	Şūr
7	□َى	á	مرسى مطروح	Marsá Maţrūḩ
8	□ْ	not romanized		
9	□َيْ	ay	صيدا	Şaydā
10	□َوْ	aw	الدوحة	Ad Dawḩah
11	□ً	a^n		See note 8.
12	□ٍ	i^n		See note 8.
13	□ٌ	u^n		See note 8.
14	□ّ	doubling of consonant letter		See note 9.
15	أ	’		See note 10.
16	آ	ā in word-initial position	آلبو معيط	Ālbū Mu‘ayţ [11]
		’ā in word-medial position	قرآن	Qur’ān

10. *Hamzat al waşl* (ا), which is utilized only in the pointing of classical Arabic, is romanized ʼ, as illustrated in the classical form of its name *hamzatu ʼl waşli.*

11. Since *maddah* (ٓ), which is placed over *alif* (ا), nearly always occurs in word-initial position, no confusion results from the use of **ā** for *alif maddah* (آ) as well as for *fatḩah alif* (اَ) .

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NUMERALS

٠	١	٢	٣	٤	٥	٦	٧	٨	٩
0	1	2	3	4	5	6	7	8	9

Although Perso-Arabic script is written from right to left, numerical expressions, e.g., ١٩٥٦ → **1956**, are written from left to right.

NOTES

1. The symbol □ represents any Arabic consonant character.

2. *Hamzah* (ء) is written in Arabic over all initial *alifs* except those which belong to the definite article **al** or bear a *maddah*. (See note 10.) When the purpose is to indicate the presence of a glottal stop, *hamzah* is written over medial and final *alif* (ا), *wāw* (و), and *yā’* without dots (ى). *Hamzah* following *kasrah* (□ِ) is written ئ. Almost always the *yā’* is in the initial or medial form and the dots are omitted. Example: بئر . *Hamzah* following *ḍammah* (□ُ) is written ؤ . *Hamzah* following a long vowel is written without a bearer and is positioned on the line of print like a regular character. The romanization of *hamzah* (’) should always be carefully distinguished from that of *‘ayn* (‘).

3. *Alif* as such is not romanized when it is a bearer of *hamzah*, but see *fatḥah alif* (□َا) and *alif maddah* (آ) in the vowel table. See also note 1 above and note 10.

4. In certain endings, an original *tā’* (ت) is written (ة), i.e., like *hā’* with two dots, and is known as *tā’ marbūţah*. It is romanized **h**, except in the construct form of feminine nouns, where it is romanized **t**, instead. Example: *hamzah*, *hamzat al qat‘* . The ending *fatḥah hā’* (□َه) may be romanized **a·h** when the character *hā’* (ه) is not silent. Example: **Muntaza·h**. See also note 4.

5. Occasionally, the character sequences ـتهـ , ـكهـ , ـدهـ , and ـسهـ occur. They may be romanized **t·h**, **k·h**, **d·h**, and **s·h** in order to differentiate those romanizations from the digraphs **th**, **kh**, **dh**, and **sh**. See also note 3.

6. Where special considerations are paramount, the sub-dot (□̣) may be used in place of the cedilla.

7. The character *yā’* (ي) is also used in writing *alif maqşūrah*, in which the dots are omitted. See *alif maqşūrah* (□َى) in the vowel table.

8. The classical Arabic grammatical endings written with the nunation symbols (*tanwīn*) may be romanized, when necessary, by **a**^{n}, **i**^{n}, **u**^{n}. In modern Arabic, these endings have become silent and should not be romanized: classical *alifu*^{n}, modern *alif.*

9. Doubled consonant sounds are represented in Arabic script by placing a *shaddah* (□ّ) over a consonant character. In romanization the letter should be doubled. When the definite article **al** precedes a word beginning with one of the "sun letters" — **t, th, d, dh, r, z, s, sh, ş, ḑ, ţ, ẓ, l**, or **n** — the **l** is assimilated in the pronunciation, thus yielding **tt**, **thth**, etc., in romanization. Example: **An Nīl**, not **Al Nīl**.

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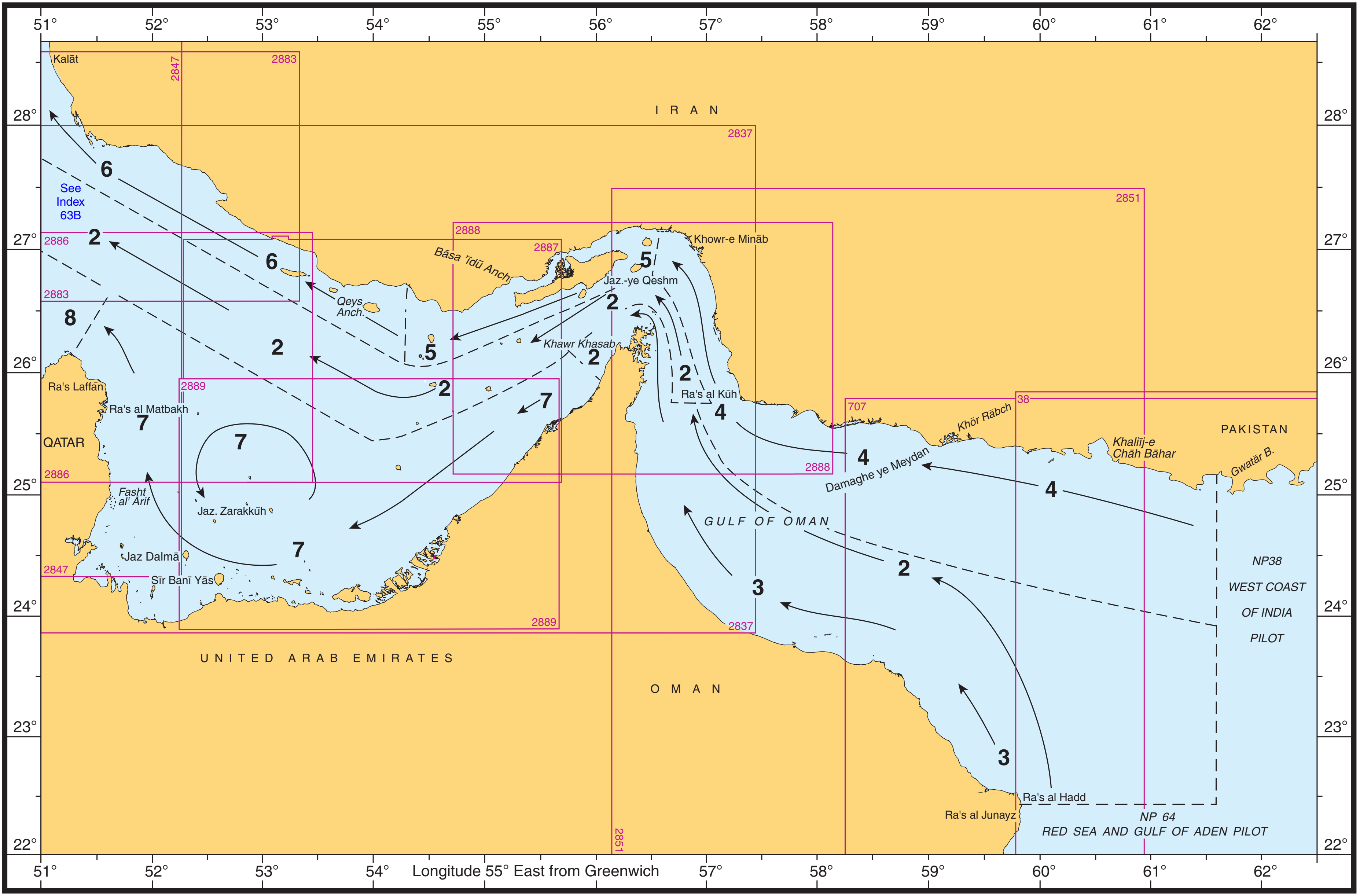
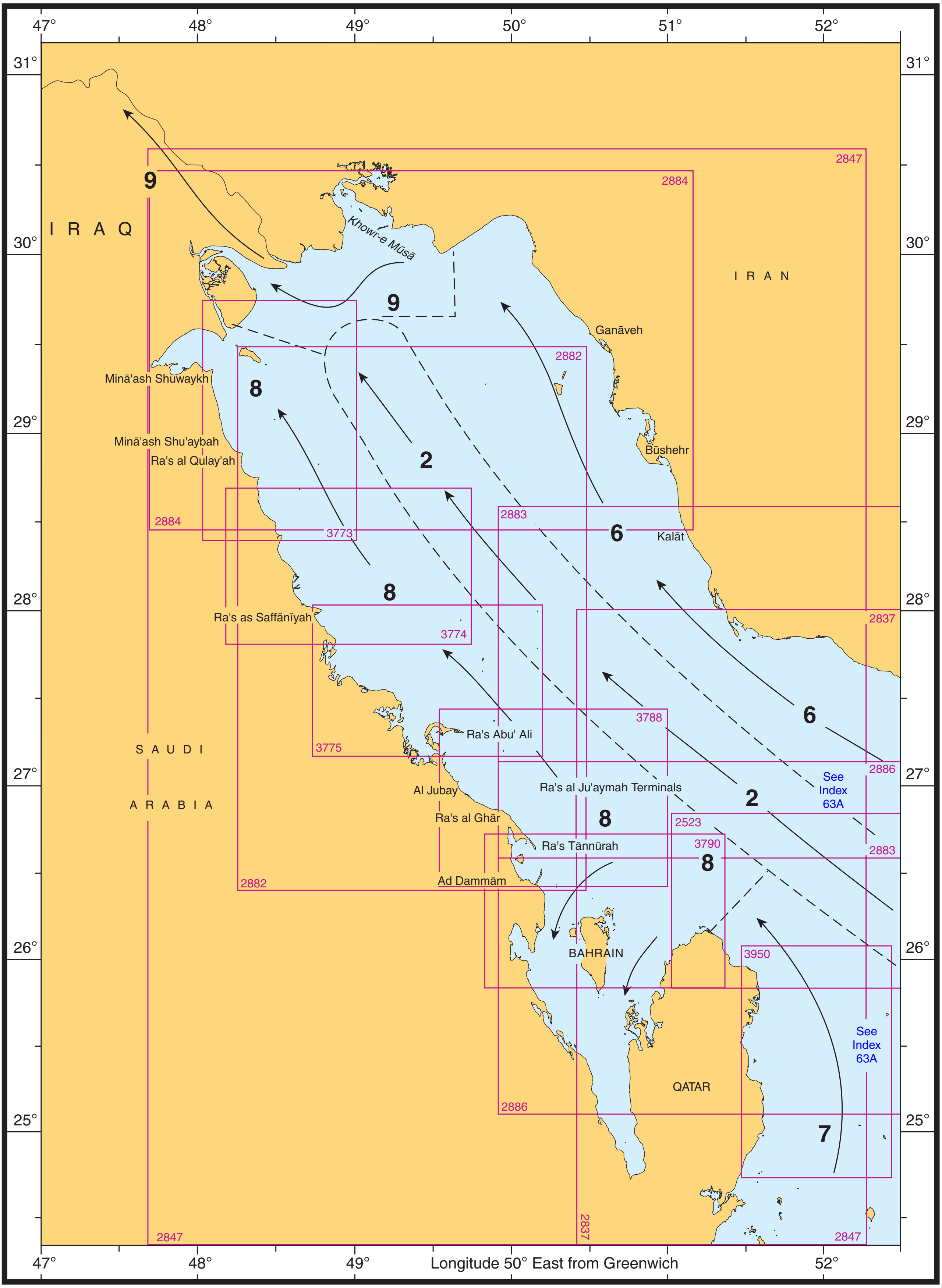
Chapter Index Diagram



Persian Gulf Pilot

NP 63(a)

Chapter Index Diagram



Persian Gulf Pilot

NP 63(b)

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LAWS AND REGULATIONS APPERTAINING TO NAVIGATION

While, in the interests of the safety of shipping, the United Kingdom Hydrographic Office makes every endeavour to include in its hydrographic publications details of the laws and regulations of all countries appertaining to navigation, it must be clearly understood:-

(a) that no liability whatsoever can be accepted for failure to publish details of any particular law or regulation, and

(b) that publication of details of a law or regulation is solely for the safety and convenience of shipping and implies no recognition of the international validity of the law or regulation.

PERSIAN GULF PILOT

CHAPTER 1

NAVIGATION AND REGULATIONS
COUNTRIES AND PORTS
NATURAL CONDITIONS

NAVIGATION AND REGULATIONS

LIMITS OF THE BOOK

Charts 2858, 2837, 2847

1.1

1 This volume contains Sailing Directions for Gulf of Oman, N of the parallel 22°25′N and W of the meridian 61°25′E, for the whole of Persian Gulf and the waterways N which lie within the general limits defined below:

	Lat N	*Long E*
From Ra’s al Junayz:	22°25′	59°50′
NW along the coasts of Oman and United Arab Emirates to Dīdamār (Little Quoin Island):	26°29′	56°32′
Thence SW along the coasts of Oman and United Arab Emirates to Abu Dhabi:	24°29′	54°22′
Thence W along the coast of United Arab Emirates and N along the E coast of Qatar to Ra’s Rakan:	26°11′	51°13′
Thence S along the W coast of Qatar and NNW along the coasts of Saudi Arabia and Kuwait, including the island of Bahrain, to Al Kuwayt Harbour:	29°21′	47°56′
Thence ENE along the coasts of Iraq and Iran, including Khawr ‘Abd Allāh, Shatt al Arab and Khowr-e Mūsá, to Bandar-e Deylam:	30°04′	50°09′
Thence SSE and ESE along the coast of Iran to Ra’s–e Bostāneh:	26°30′	54°37′
Thence along that part of the coast of Iran which forms the N side of the Strait of Hormuz to Bandar–e Sīrīk:	26°30′	57°05′
Thence SSE and E along the coast of Iran to Damāgheh–ye Pas Bandar:	25°04′	61°25′

NAVIGATIONAL DANGERS AND HAZARDS

Depths

Under–keel clearance

1.2

1 Depths in Persian Gulf are comparatively shallow, less than 90 m. Deep–draught tankers may have to navigate for a considerable distance with little water beneath their keels; for factors to be taken into account when deciding on a safe under–keel clearance see *The Mariner’s Handbook* and the *Annual Summary of Admiralty Notices to Mariners* Notice No 15.

2 Charts covering the approaches to the major terminals are based on recent surveys, but in some parts of Persian Gulf the charted soundings are taken from old imperfect surveys. Deep draught vessels should, when possible, avoid navigating in waters where the chart source data diagram shows no recent survey has taken place; see The Use of Charts and Other Navigational Aids in *The Mariner’s Handbook*.

Under–keel clearance in approach channels

1.3

1 Port regulations at some ports in Persian Gulf stipulate the minimum under–keel clearance permissible for a ship entering or leaving that port. These clearances will be based on a ship following a channel that has been recently surveyed and in which the ships position can be accurately fixed; it will be in relatively sheltered waters where a heavy sea and swell are unlikely; it will be proceeding at a relatively slow speed; and accurate tidal predictions for the port can be made. These clearances must not be taken as a guide to a safe under–keel clearance in the open sea where a much larger clearance is essential for safe navigation.

Tidal predictions

1.4

1 Accurate tidal predictions for the major ports can be obtained from Admiralty Tide Tables. The range of tide in Persian Gulf does not exceed 3 m and in the S part it is less than 2 m, but such heights may be crucial to the under–keel clearance of a deep–draught ship who may require to predict the height of tide for a position in open sea at a considerable distance from a standard or secondary port.

Sea levels

1.5

1 Strong winds blowing in a constant direction for a prolonged period set up a surface current which can lower the sea level in one place and raise it in another. In precise terms little is known about the effects of winds on sea level in Persian Gulf, though it is known that in many places the wind has a marked effect on both the strength and direction of the tidal stream. As the waters of Persian Gulf are comparatively shallow, and as winds can blow for prolonged periods, it must be expected that unpredictable changes in sea level will occur and some allowance should be made for this fact. Normal seasonal variations in sea level are taken into account in tidal predictions; see Non–tidal Changes in Sea Level in *The Mariner's Handbook*.

Navigation amongst coral

1.6

1 For information on navigation in coral waters see *The Mariner's Handbook.*

Mine danger areas

General information

1.7

1 Mine danger areas lie off the coast of Kuwait from N of Qiţ ‘at Banāyā (28°37′N 48°26′E) to W of Arḑ Bard Ḩalq, 8 miles SSE; off the coast of Iraq within Khawr ‘Abd Allāh (29°50′N 48°28′E); W and SW of Khawr al Amaya Oil Terminal (29°47′N 48°48′E); close W of Al Başrah Oil Terminal (29°41′N 48°49′E) and S of Athan Shoal (29°44′N 48°35′E). Mariners are warned that no swept routes (2004) have been established through these areas and they should be avoided.

Former mine danger areas

1.8

1 Former mine danger areas lie off the coast of Kuwait (29°00′N, 48°45′E), in the whole of Khalīj al Kuwayt (29°27′N 48°02′E), and across the approach to Khawr ‘Abd Allah from N of Al Başrah Oil Terminal to WSW of the terminal, between the mine danger areas. Though these areas have been swept for mines they could still present a hazard. Anchoring, fishing or any seabed operations are not recommended anywhere within these areas. Extreme caution is required when navigating in such areas; anchoring, when necessary, should only be within designated anchorages as directed by the local authority.

Drifting mines

1.9

1 Drifting mines have been reported on the SW side of Persian Gulf which have probably come from minefields laid in the war zone at its head; due to the prevailing current they may continue to drift anti–clockwise round Persian Gulf. The mines appear brown or rust coloured and, floating low in the water, they are difficult to see. There is some measure of danger from mines which have been sunk, but not destroyed; vessels should, if possible, avoid passage through any areas of Persian Gulf where there is not a least 2 m of under keel clearance.

2 Further information may be obtained from Maritime and Naval authorities; relevant Admiralty Notices to Mariners should be consulted. Mine sightings should be reported to coalition naval vessels and naval authorities; sightings within territorial waters should be reported to the appropriate local authority. See *Annual Summary of Admiralty Notice to Mariners No 6.*

Piracy and armed robbery

1.10

1 Acts of piracy have been reported (2005) off the coast of Iraq by vessels at anchor and underway; for further information on piracy see *Admiralty List of Radio Signals Volume 1* and *The Mariner's Handbook.*

TRAFFIC AND OPERATIONS

Traffic

Crossing traffic

1.11

1 Vessels bound for ports or terminals in the S part of Persian Gulf should, as soon as safe and practicable, make a bold alteration of course S on clearing the Strait of Hormuz in order to cross the track of E–bound shipping on passage between the Tonb–Forūr TSS and the Strait of Hormuz TSS, at as broad an angle as possible. They should then keep well S of the E bound route.

Similar action should be taken by vessels bound for Jazīrat Dās, or other ports and terminals farther S and W, on clearing the Tonb–Forūr TSS in order to cross the track, at as broad an angle as possible, of E–bound shipping on passage from the central gulf area towards the E bound lane of the Tonb–Forūr TSS.

Local craft

1.12

1 Trading between ports in Persian Gulf, India, Red Sea and the E coast of Africa is partly carried out in vessels locally called bāgalas and bums; similar vessels from India are known as kutiyahs and dangiyahs respectively. They are usually between 100 and 400 tonnes with a tall mainmast and lateen sail, and a small lateen mizen; they sail well in moderate winds, but do not trade during the SW monsoon. Smaller local craft are similarly rigged, but without the mizzen. The term dhow in not used by the local trading communities, it is of western origin used to denote any local craft.

Ship supply services

1.13

1 Ship supply boat services for crew change, mail, stores, spare parts etc are operated by Gulf Agency Company out of Fujairah and by LAMNALCO out of Khawr Fakkān into Gulf of Oman; the supply boats usually rendezvous at 25°24′N 56°33′E; see 1.23. Similar services are operated by Gulf Agency Company (GAC) in the Persian Gulf out of Mīnā' Saqr and Dubayy; the supply boats usually rendezvous in the vicinity of the Inchcape Light–buoy (26°10′N 55°53′E).

Exercise areas

1.14

1 Firing and other maritime exercises are carried out in areas off the coasts of Oman, see 3.4; exercises involving submarines are carried out off the coast of Iran, see 4.3. Notice of firing practices and of the areas involved are promulgated by Coastal Warning Messages and by local Notices to Mariners. See *Admiralty List of Radio Signals Volume 3 (1), Annual Summary of Admiralty Notices to Mariners Nos 5 and 8,* and *The Mariner's Handbook*.

Marine exploitation

Oil and gas fields

1.15

1 There are many oil and gas fields in Persian Gulf and within them are numerous rigs and drilling platforms, most of which exhibit lights, sound fog signals and are shown on the larger scale charts; mariners should, however, be aware that rigs, platforms and other obstructions may be encountered that are uncharted and unlit. Operations are still taking place to locate new fields and exploit existing ones; vessels engaged in underwater surveys and mobile drilling rigs may be encountered anywhere in Persian Gulf.

2 Existing fields are shown on Admiralty Charts along with their names, however it is impracticable to chart every structure and navigational aid within the fields as they are numerous and continually being altered. The main limits are shown by pecked lines within which individual structures are not normally charted, outside of these lines all known permanent structures and their navigational aids are charted. Flares burning off gas from rigs are sometimes very bright and difficulty may be experienced in identifying any navigational lights in their vicinity.

3 The positions of mobile drilling rigs or vessels are not promulgated by *Admiralty Notice to Mariners* as they move frequently; their movements are made known by local Notices to Mariners issued by the Middle East Navigation Aids Service (MENAS). Notices are not issued for movements within existing fields or in areas of no navigational significance. In certain circumstances MENAS will also promulgate movements through local radio stations; the Iranian authorities also issue local notices. Movements of mobile rigs or vessels are promulgated through NAVAREA IX radio navigational warnings.

4 Oil fields and offshore installations should be avoided if at all possible; if it is necessary to navigate in their vicinity vessels should proceed with particular regard to their speed and their distance off any structure. See *The Mariner's Handbook*.

Abandoned platforms

1.16

1 Some of the oil production platforms in Persian Gulf have been removed and in many cases all that remains are pipes standing from 3 to 6 m above sea level; the pipes do not show up well on radar and could be a hazard to navigation.

Submarine pipelines

1.17

1 Mariners are advised not to anchor or trawl in the vicinity of pipelines. Gas from a damaged oil or gas pipeline could cause an explosion, loss of a vessels buoyancy, or other serious hazard. Pipelines are not always buried and may effectively reduce the charted depth by as much as 2 m. The may also span seabed undulations and cause fishing gear to become irrecoverably snagged, putting a vessel in severe danger. See *Annual Summary of Admiralty Notices to Mariners No 24* and *The Mariner's Handbook.*

CHARTS

Admiralty charts

1.18

1 The metrication of British Admiralty charts covering this volume is complete; they are adequate for use on passage, and for approach and entry to the principal ports and harbours described. Charted information has been derived from British, US Government and other surveys, soundings obtained from ships on passage, other nations' navigational charts, and various other sources. Considerable development has taken place, which is still ongoing; new traffic separation schemes have been established. New Admiralty charts and new editions have been published and this will continue as new surveys and information are received. Coastal navigation, however, does require caution in some areas especially along a large part of the Iranian coast, within Persian Gulf which is not surveyed to modern standards; offshore soundings are, to a great extent, taken from reports by ships on passage.

AIDS TO NAVIGATION

General information

1.19

1 Aids to navigation in many areas of Persian Gulf are reported unreliable; they may be missing, unlit or out of position. Vessels should navigate with particular caution.

Landmarks

1.20

1 The small towns on the shores of Persian Gulf are all very similar, they generally comprise of a square fort of rough stone with towers at each corner or several detached round towers, a Shaykh's house of stone and perhaps one or two others, a date grove is usually in the immediate vicinity with one or two detached towers near wells. As a rule the towns are situated near a small creek or backwater where there is a suitable place for hauling up boats. Larger towns are sometimes walled with a larger proportion of stone buildings, in some towns large high buildings have been constructed. The birkeh, a water reservoir, is a characteristic of many Iranian towns and villages on the shores of Persian Gulf, it is either oblong and arched over, or circular and domed, being white it is often conspicuous from seaward especially those of the domed variety.

2 **Caution** is necessary when evaluating the descriptions given in this volume concerning landmarks, such as trees and the colour and shape of buildings and other marks. New buildings may have been erected and old trees or houses destroyed, so that the marks, which may at one time have been conspicuous on account of their isolation, shape

or colour, may no longer exist or may now be difficult to identify. Oil loading ports and terminals are responsible for radical changes in the appearance of many existing small settlements and the establishment of others.

Buoys

1.21

1 IALA Maritime Buoyage System Region A (Red to Port) has been introduced in the area covered by this volume, but mariners should exercise caution and always consult the largest scale chart of the area. The conventional direction of buoyage follows the direction taken when approaching a harbour, river estuary or offshore terminal; the routes approaching offshore terminals are described in the appropriate chapter and should be consulted.

PILOTAGE

General information

1.22

1 Pilots are available at all the main ports and pilotage is generally compulsory. Where the approach channels are long and intricate the pilots meet vessels at their seaward ends; where the approaches are buoyed, straight forward and deep it is more usual for a pilot or boarding master to board at the anchorage solely to berth the vessel at the loading jetty or buoy.

Persian Gulf

1.23

1 Pilots for passage through Persian Gulf are provided by Noble Denton Pilots based in the Port of Fujayrah (3.174); pilots board in the vicinity of 25°12′N 56°36′E, about 12 miles E of the port. A similar service is also provided by LAMNALCO which operates out of the Port of Khawr Fakkān (3.230); pilots board in the vicinity of 25°24′N 56°33′E, about 10 miles ENE of the port. For further details see *Admiralty List of Radio Signals Volume 6 (3).*

Saudi Arabia

1.24

1 Pilotage is compulsory for all vessels of 150 nrt and over, except pleasure craft, entering, navigating within or leaving pilotage areas in the Kingdom of Saudi Arabia. For further details see *Admiralty List of Radio Signals, Volume 6 (3).*

RADIO FACILITIES

Electronic positioning systems

Satellite navigation systems

1.25

1 Information concerning satellite navigation systems and other electronic fixing systems are contained in *Admiralty List of Radio Signals Volume 2*. Satellite navigation systems are under the control of the owning nation which can impose selective availability or downgrade the accuracy to levels less than that available from terrestrial radio navigational systems. Therefore satellite base systems should only be utilised at the user's risk.

Differential Global Positioning System

1.26

1 Beacons which transmit DGPS corrections are established within Persian Gulf; for details see *Admiralty List of Radio Signals, Volume 2.*

Loran C

1.27

1 Loran C is a long range hyperbolic radio navigation system using at least three land based radio transmitters and receivers to allow mariners to determine their position. The Saudi Arabia Loran C chain covers the area of this volume; for details see *Admiralty List of Radio Signals, Volume 2.*

Other radio aids to navigation

Racons

1.28

1 Racons are fitted to many of the lighthouses, light–buoys and light–beacons covered by this volume; for further details see *Admiralty List of Radio Signals, Volume 2.*

Coast radio stations

1.29

1 Coast radio stations are established within the area covered by this volume. For a list of coast radio stations and details of the services they provide see *Admiralty List of Radio Signals, Volume 1 (1).*

Radio navigational warnings

1.30

1 The area covered by this pilot lies within the limits of NAVAREA IX. Details of warnings and a list of those in force are issued by the Co-ordinator NAVAREA IX, Hydrographer of the Pakistan Navy, Naval Headquarters, Karachi, Pakistan.

Navigational warnings are broadcast in English from the following stations.

Station	*Area covered*
Muscaţ	Persian Gulf and Gulf of Oman
Bandar ‘Abbās	Strait of Hormuz and Persian Gulf
Būshehr	NW of Persian Gulf
Bahrain	Persian Gulf and approaches
Ad Dammām	Saudi Arabian waters of Persian Gulf and local warnings for Ra’s Tannūrah and Ra’s al Ju‘aymah

For further details see *Admiralty List of Radio Signals Volume 3 (1).*

Navtex

1.31

1 Navtex, an automated service broadcast on 518 kHz for promulgation of navigational and meteorological warnings, fulfils an integral role in the Global Maritime Distress and Safety System. It is available from stations covered by this volume. For further details see *Admiralty List of Radio Signals Volume 3 (1).*

Automatic identification system

1.32

1 For information on the use of the Automatic Identification System (AIS) see *The Mariner's Handbook.*

Radio weather reports

1.33

1 For broadcast details see *Admiralty List of Radio Signals Volume 3 (1).*

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Radio medical advice

1.34

1 Medical advice by radio may be requested from the Centro Internazionale Radio Medico (C.I.R.M.), Rome, Italy. For further details see *Admiralty List of Radio Signals Volume 1 (1).*

REGULATIONS

International regulations

Submarine cables and pipelines

1.35

1 Mariners should not anchor in the vicinity of submarine cables; see *The Mariner's Handbook* for further information and information on the International Convention for the Protection of Submarine Cables.

The FOG (Fibre Optic Gulf) cable is laid through Persian Gulf from Kuwait to the United Arab Emirates with spurs to Bahrain and Qatar. Anchoring and trawling are prohibited 5 cables either side of the cable in Kuwaiti waters; 200 m either side in Bahraini waters and 500 m in Qatari waters.

Traffic separation

1.36

1 See IMO Publication *Ships Routeing* for general provisions on ships routeing; regulations for IMO adopted schemes are contained in Rule 10 of the *International Regulations for Preventing Collisions at Sea 1972.*

Pollution

1.37

1 **Special areas** The Persian Gulf and Gulf of Oman, W of a line joining Ra's al Ḩadd (22°32′N 59°48′E) and Damāgheh–ye Pas Bandar, 175 miles NNE, are defined as Special Areas for the purpose of the Convention for the Prevention of Pollution from Ships 1973 (MARPOL 73).

See *The Mariner's Handbook* for details on the *International Convention for the Prevention of Pollution from Ships 1973 (MARPOL 73)* and the *1978 Protocol to MARPOL 1973.*

National regulations

United Arab Emirates

1.38

1 **Marine pollution.** The Port of Fujayrah Authorities have stated that all vessels on passage through, or at anchor within, the territorial waters of Fujayrah Emirate are obliged to report the time of sighting and the position of any sea surface oil pollution within its immediate vicinity. This information should be passed to the Marine Office of the Port of Fujayrah Authority. Air and sea pollution surveillance are undertaken and should oil be sighted surrounding any vessel within the territorial waters of Fujayrah, which that vessel has failed to report, then the vessel concerned will be liable to a fine.

Saudi Arabia

1.39

1 **Rules and Regulations.** Vessels calling at Saudi Arabian ports are required to have on board a copy of *Rules and Regulations for Saudi Arabian Seaports, Parts 1–4* produced by the Kingdom of Saudi Arabia Ports Authority. A copy of the rules, which are extensive, should be obtained on arrival. Saudi Arabian Government Regulations are strictly enforced and mariners having any doubt concerning the understanding of these regulations are urged to consult their agent. Whether in port or at anchor the vessels personnel are under the jurisdiction of Saudi Arabian Law.

2 **Notice of arrival.** The following information should be sent to the relevant Saudi Arabian port authority prior to arrival.

a Vessels name and former names, if any.

b Flag, port of registry and call-sign.

c Length, grt, nrt and dwt.

d Draught on arrival.

e ETA.

f Cargo particulars, including nature, weight, tonnage and stowage by hatches. Car carriers, Ro-Ro and Container vessels to give both number and weight in ton of each type of unit.

g Any cargo being carried for other destinations.

h If dangerous cargo is being carried, the quantity and class must be indicated in accordance with the IMDG code and it must be stated whether this cargo is to be discharged or is in transit.

i Number, position and static weight load of derricks and/or cranes and position and particulars of ramps.

j Number and nationalities of passengers to be disembarked and in transit.

k Expected requirements for bunkers and water.

l Name of vessels agent.

m Not less than 48 hours before arrival a detailed list of arms and ammunition carried for self defence.

3 In addition tankers are required to report:

a The flash-point of any cargo to be discharged.

b If the vessel is in ballast, whether gas free or not, or whether in an inert condition.

c Any other relevant information concerning special conditions, difficulties, defective equipment or gear, which would create special hazards when mooring, unmooring or handling cargo.

Pilotage is compulsory at all Saudi Arabian ports; movement of any vessel within a pilotage zone, without a pilot embarked, will result in heavy fines, delay to the vessel and the barring of the Master from Saudi Arabian ports; see 1.24.

4 **National flag.** Saudi Arabian regulations require all vessels to fly the Saudi Arabian flag from the vessels foremast, by day and night, while in Saudi Arabian waters. This regulation is strictly enforced by the Saudi Arabian coastguard and failure to comply will be punished by fine and imprisonment. The Saudi Arabian flag is properly displayed when the Arabic writing appears at the top of the flag and the sword at the bottom.

All ships must be dressed in port, or entering port, on the official holidays of Eid Al–Fitr, Eid Al–Adha and National Day, and on any Royal visits to the port; see 1.41.

5 **Alcohol.** The consumption of all alcohol, even if considered part of the daily diet, is prohibited within the Kingdom of Saudi Arabia. Vessels alongside, at mooring buoys, or at anchor in Saudi Arabian ports are considered to be within the Kingdom.

Vessels more than fifteen years old are not permitted to discharge cargo using ships gear at a Saudi Arabian port unless an approved surveyor has issued an appropriate inspection certificate, at the loading port, for all cargo gear, deck machinery and their power supplies.

6 **Traffic control areas** are established within a radius of 25 miles of all port control signal stations. All vessels must conform to the regulations concerning traffic control within the area as may from time to time be promulgated by the port management. No vessel is allowed to move without prior contact with and approval of the port control.

7 **Pollution.** Penalties for unlawful discharge of oil into the sea and for not keeping, or maintaining, the vessels oil record book involve both fines and imprisonment.

Photography is strictly prohibited while the vessel is at anchor or alongside.

Pornography. Laws with regard to pornography are strictly enforced; any pornographic material on board must be in a secure and locked stowage throughout the vessels stay.

8 **Rat guards** must be fitted on all mooring wires and ropes.

Anchor cable. A vessel with an anchor down must ensure, as an emergency precaution, a joining shackle is on deck and accessible in the event it being necessary to break the cable.

Iran

1.40

1 **Vessels bound for Iranian ports.** All vessels bound for Iranian ports should report to Bandar ‘Abbās CRS on passing Ra’s al Kūh (25°48′N 57°18′E) stating their ETA at the Strait of Hormuz and destination. If clearance is not received before passing Bandar–e Shahīd Rajāī (27°06′N 56°04′E) (5.50) vessels should proceed to the anchorage off that port. For further information see *Admiralty List of Radio Signals Volume 6 (3).*

2 **Port regulations.** The following are extracts from the regulations for the ports of Iran:

Article 28 states; The Master of every vessel arriving at an Iranian port is required to carry out the following formalities:

To display the Iranian flag at the foremast so long as the vessel remains in Iranian territorial waters.

To give at least 24 hours notice to the Port (Authority) Office of his intended arrival if the vessel is foreign and to produce, on request, her plan and log which must be signed on each page, the blank spaces being ruled through and signed.

Customs formalities: A document must be transmitted to the Port (Authority) Office within 24 hours of arrival giving the name of the vessel, her tonnage, the name of her owner, a nominal list of passengers and crew, a copy of the manifest and details of the cargo consigned to the port.

3 The berth for each vessel will be assigned by the Port Administration (Authority) with due regard to the views of the Customs Administration (Authorities). The Master of the vessel must retain in the vicinity of the port a sufficient number of men in order that the vessel may be moved in the case of necessity, or if so directed by the authorities.

Article 29 states: No vessel may discharge her cargo at any place where there is no Customs Office or establish communication with the shore there.

4 Article 30 states: No vessel may leave an Iranian port or the coast without permission which will be granted at once after the completion of the necessary formalities and the payment of customs charges and port dues.

Article 43 states: Masters of vessels having explosive or inflammable substances on board are required to give notice thereof to the Port Administration (Authority) before entering.

5 Article 44 states: No vessel may enter a port or proceed alongside before having discharged any dangerous substances which have reached their destination. The Customs Administration (Authorities) must be notified in advance.

Article 58 states: Vessels navigating in narrow waterways, canals and inlets must reduce speed as necessary and pass sufficient distance from vessels displaying a red flag.

6 **Islamic laws and regulations.** All vessels calling at an Iranian port must observe and strictly adhere to the Islamic laws and regulations imposed by the Government of Iran.

COUNTRIES AND PORTS

GENERAL INFORMATION

Muslim festivals

1.41

1 All religious festivals are dated according to the Muslim calendar. Islamic months follow the phases of the moon and, in consequence, come forward by about 11 days each year in relation to the Gregorian calendar; the day begins at sunset and is divided into two 12 hour periods. Holidays can be one day early or late depending on the sighting of the moon and may vary in length from 1 to 4 days. Whenever a holiday falls on Friday, the normal weekly holiday, an extra day is generally taken.

2 Muharram, meaning sacred, is the first month of the Islamic year and is held sacred by all Muslims; the first day of Muharram is widely observed as a holiday; the ninth and tenth days of the month are of special significance to the Shia sect. Ramadan is the ninth month of the Muslim calendar and is a period of fasting and self-purification; all Muslims are required to abstain from food, drink and tobacco between sunrise and sunset; working hours are reduced during this period. Eid al Fitr, the feast of the breaking of the fast, is a major holiday following Ramadan. Eid al Adha or Eid al Hajj is the celebration of the annual pilgrimage to Mecca which all devout Muslims make at least once in their lifetime.

The dates of the commencement of Ramadan and the Moslem New Year are given annually in the *Nautical Almanac.*

OMAN

General description

1.42

1 The Sultanate of Oman lies in the SE corner of the Arabian Peninsula on the NW side of the Arabian Sea and the SW side of Gulf of Oman. Muscat (23°35′N, 58°35′E) is the capital city; in 2001 the city had an estimated population of 540 000. Dhofar is governed as a separate province and Muscat has special status. Oman has a total land area of 309 500 square kilometres.

2 Within the area covered by this volume the coast is in three parts, Oman, Al Bāţina and Ru’ūs al Jibāl. The coast of the Oman district extends from SW of Ra’s al Junayz (22°26′N, 59°50′E) to just beyond Ra’s al Ḩamrā, about 100 miles NW, and includes the city of Muscaţ (3.58) and Port Sultan Qāboos (3.71); the district of Al Bāţina extends a farther 140 miles NNW; Ru’ūs al Jibāl is a detached province at the extremity of the promontory forming the S side of the entrance to Persian Gulf and includes those islands close off the promontory.

National limits

1.43

1 Oman is bound on the SW by the Republic of Yemen on the W by Saudi Arabia and on the NW by the United Arab Emirates. Only that part of the coast of Oman bordering Gulf of Oman, NE of Ra’s al Junayz (22°26′N, 59°50′E), is described in this volume, the remainder of the coastline, S and SE of this point, is described in the *Red Sea and Gulf of Aden Pilot.*

Oman claims a 12 mile territorial sea, a 24 mile contiguous zone adjacent to its territorial seas and a 200 mile exclusive economic zone. For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner’s Handbook.*

History

1.44

1 The early history of Oman is virtually unknown until the first waves of Arab settlers from the SW moved into the area about 2000 years ago. A second migration probably entered the country from the N and a loosely knit tribal society, under an elected Imam or ruler of the Ibadhi branch of Islam, was evolved. Oman became part of the Islamic empire in the seventh century.

2 The Portuguese first arrived off the coast of Oman in 1507, subsequently occupying Muscat and the coastal towns for over a century. In 1624 Nasr was elected Imam and, having first unified his country, proceeded to drive out the foreigners. In 1650 his successor, Imam Sultan, completed the expulsion of the Portuguese and pursued them down the E coast of Africa; here he formed the Omani colonial empire which, largely through the trade in slaves, was to enrich his country so much over the next two centuries.

3 Following the death of Imam Sultan in 1679 a hereditary principle of succession was established which still continues. In the early nineteenth century the British, through the East India Company, bought pressure to bear on the Omanis to restrict the slave trade, a disastrous blow to their economy. Compensation for this loss of revenue was paid by Britain between 1871 and 1956 and provided a stable income for the economy over this period.

4 Internal tribal strife beset the country until 1920 when the Treaty of Seeb brought peace. In 1924 the first oil concession was granted, but oil was not discovered in commercial quantities for 40 years; it was not until 1967 that the first oil exports were made. In 1970 the current Sultan ousted his father in a place coup and began to modernise the country, changing its name to the Sultanate of Oman.

Government

1.45

1 Oman is a hereditary absolute monarchy; the Sultan legislates by decree and appoints a cabinet to assist him. The Basic Statute of the State was enacted in 1996. In 1991 a new consultative assembly, the Majlis al Shura, replaced the former State Consultative Chamber, it consists of 83 elected members and debates domestic issues, but has no legislative or veto powers. There is an upper house, the Majlis al Dawla, of 53 appointed members, but has advisory powers only.

Population

1.46

1 In 2001 the population of Oman was estimated at 2 622 000.

Language

1.47

1 The official language is Arabic; English is in commercial use and widely spoken.

Physical features

1.48

1 Oman extends inland to the borders of Rub’ al Khali (Empty Quarter) passing across three geographical divisions, a coastal plain, a range of hills and a plateau. The coastal plain is up to 10 miles wide and, in the SW part of the country, is highly fertile. The hills behind the plain are, for the most part, barren. The plateau, which has an average elevation of about 300 m, has little or no cultivation except at oases.

Industry and trade

1.49

1 There is considerable cultivation in the fertile areas and cattle are raised on the mountains; the backbone of the economy is the oil industry which accounts for about 40 per cent of GDP and makes up to approximately 83 per cent of total exports; other non-oil exports include metal, metal goods, animals and textiles; principal imports include machinery, transport equipment, industrial goods, live animals, minerals, fuels and foodstuffs.

Oman along with Bahrain, Qatar, Saudi Arabia, Kuwait and the United Arab Emirates began the implementation of a customs union in January 2003.

UNITED ARAB EMIRATES

General description

1.50

1 The United Arab Emirates is situated in the SE of the Arabian peninsula; six of the emirates lie on the shore of the Persian Gulf between the Musandam and Qatar peninsulas; the seventh emirate, Fujayrah, has its entire coastline on Gulf of Oman. The total land area of the Emirates, excluding offshore islands, is 83 657 square km; Abū Z̧aby, the federal capital, has an estimated population of 450 000 (2005).

National limits

1.51

1 The United Arab Emirates are bounded in the N by Persian Gulf, NE by Oman, E by Gulf of Oman and Oman, S and W by Saudi Arabia and NW by Qatar. Their main coast line extends from Ra's ash Sha'm (26°04′N 56°05′E) on the W side of Ru'ūs al Jibāl to Khawr al 'Udayd (24°37′N 51°23′E) at the SE end of the Qatar peninsular; in addition the emirate of Fujayrah has a coast line on Gulf of Oman between Al Murayr (24°56′N 56°23′E) and Dibā, 40 miles N.

2 The United Arab Emirates claim a 12 mile territorial sea, a 24 mile contiguous zone and a 200 mile exclusive economic zone. For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.52

1 The United Arab Emirates, formally known as the Trucial States, is composed of seven individual emirates namely, Abū Z̧aby, Dubayy, Sharjah, 'Ajmān, Umm al Qaywaynw, Ra's al Khaymah (joined 10 February 1972) and Fujayrah which together formed an independent state on 2 December 1971 when their special treaty relationships with the British Government ended. The Union Government then assumed full responsibility for all internal and external affairs apart from some internal matters that remain with the individual emirate.

Government

1.53

1 The Emirates is a federation, headed by a supreme Council of Rulers which elects from among its members a President and Vice–President for five year terms, and appoints a Council of Ministers. The Council of Ministers drafts legislation and a federal budget; its proposals are submitted to a Federal National Council of 40 elected members which may propose amendments, but has no executive power.

Population

1.54

1 In 2001 the population of the United Arab Emirates was estimated at 2 654 000.

Language

1.55

1 The official language is Arabic; English is in widely spoken.

Physical features

1.56

1 Much of the interior is desert which leads on to a flat coastal plain; mountains rise in the E to over 1500 m.

Industry and trade

1.57

1 The United Arab Emirates are the sixth largest oil exporter in the world; the economy is relatively diversified and includes petrochemicals, aluminium, tourism, fisheries and banking. Agricultural production has increased due to large scale water desalination and irrigation projects.

The United Arab Emirates along with Oman, Bahrain, Qatar, Saudi Arabia and Kuwait began the implementation of a customs union in January 2003.

QATAR

General description

1.58

1 The State of Qatar includes the whole of the Qatar Peninsula. Doha is the capital city; in 2001 it had an estimated population of 285 000. Qatar has a total land area of 11 437 sq km.

National limits

1.59

1 The State of Qatar is bounded in the S by Saudi Arabia; the border extends from Khawr al 'Udayd (24°37′N 51°23′E) to the S end of Dawḩat Salwá, about 30 miles WNW. The territory includes a number of islands in the coastal waters of the peninsula; the most important is Jazīrat Ḩālūl (25°40′N 52°25′E) with its major oil storage and terminal facilities.

The State of Qatar claims a 12 mile territorial sea, a 24 mile contiguous zone and a fishery zone to median lines. For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.60

1 Qatar was under Turkish rule for several centuries until 1915; it was then, until 1971, one of the nine independent emirates in the Persian Gulf in special treaty relations with Britain. It declared its independence in 1971 and the Amir assumed power on the 22nd February 1972.

Government

1.61

1 Qatar is ruled by an Amir; there is no parliament, but a Council of Ministers is assisted by a 35 member nominated Advisory Council. A commission is currently working (2005) on a draft constitution allowing for an elected parliament.

Population

1.62

1 In 2001 the population of Qatar was estimated at 575 000.

Home Contents Index

Language

1.63

1 The official language is Arabic.

Physical features

1.64

1 The terrain is mostly flat and barren with elevations from sea level to about 100 m.

Industry and trade

1.65

1 The economy is based largely on oil, gas and petrochemicals; large reserves of natural gas in the North Field came into production in 1991. Other industries include a steel mill, fertiliser plant, cement factory, petrochemical complex and two natural gas liquidation plants; agriculture and fisheries are also important. The principle exports are oil and gas; principal imports include machinery and equipment, manufactured goods, foodstuffs, livestock and chemicals.

Qatar along with the United Arab Emirates, Oman, Bahrain, Saudi Arabia and Kuwait began the implementation of a customs union in January 2003.

BAHRAIN

General description

1.66

1 The Kingdom of Bahrain consists of a group of low–lying islands situated between the Qatar peninsula and the mainland of Saudi Arabia; the largest is Bahrain Island. Al Manama is the capital; in 1991 it had a population of 140 401. Bahrain has a total land area of 694 sq km. A 25 km long causeway connects the island of Bahrain with Saudi Arabia.

National limits

1.67

The Kingdom of Bahrain claims a 12 mile territorial sea and a 24 mile contiguous zone adjacent to their territorial seas.

History

1.68

1 Bahrain was under the control of the Portuguese from 1521 until 1602; in 1783 the Khalifa family gained power and has ruled since that date. Treaties with Britain in 1882 and 1892 helped to retain Bahrain's independence which it declared fully in 1971. A constitution was ratified in 1973, but in 1975 the National Assembly was dissolved and the Amir began ruling by decree.

Government

1.69

1 A new constitution changing Bahrain from an Emirate to a Kingdom commenced on 14th February 2002; the new two house legislature was inaugurated on the 14th December 2002. The House of Deputies is a directly elected assembly of forty members; the Shura, an upper chamber of a similar number of members, is a consultative council of experts appointed by the government.

Population

1.70

1 In 2001 the population of Bahrain was 575 000.

Language

1.71

1 The official language is Arabic; English is widely used in business.

Physical features

1.72

1 Bahrain consists of a group of 33 low–lying islands and islets whose elevations range from over 120 m to sea level.

Industry and trade

1.73

1 The largest sources of revenue are oil and gas production and oil refining; the refinery at Sitrah derives about seventy per cent of its crude oil by pipeline from Saudi Arabia. Banking and tourism are of increasing importance; other industries include aluminium smelting and associated industries, shipbuilding and repair, petrochemicals, light industry and fisheries.

Bahrain along with Oman, Qatar, Saudi Arabia, Kuwait and the United Arab Emirates began the implementation of a customs union in January 2003.

SAUDI ARABIA

General description

1.74

1 The Kingdom of Saudi Arabia occupies the central part of the Arabian Peninsula between the Red Sea and Persian Gulf. Riyadh is the political capital; in 2001 it had an estimated population of 4 761 000. Mecca is the religious capital; in 1995 it had an estimated population of 770 000. The total land area of Saudi Arabia is 2 149 690 square kilometres.

National limits

1.75

1 The Kingdom of Saudi Arabia is bounded on the N by Jordan, Iraq and Kuwait, on the E by Qatar, the United Arab Emirates and Oman and on the S by Yemen. The Neutral Zone, jointly owned and administered by Saudi Arabia and Kuwait from 1922 to 1966, was partitioned between them in May 1996, but the exploitation of oil and other natural resources continues to be shared.

Saudi Arabia claims a 12 mile territorial sea and a 18 mile contiguous zone adjacent to their territorial seas. For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.76

1 The Kingdom of Saudi Arabia is a personal union of two countries, the Sultan of Najd being also the King of the Hijāz. The Kingdom had its origins in about 1740 when the Emir of Dariya, Muhammad al Saud, extended his patronage and support to Shaikh Muhammad Ibn Abdul Wahhab, a religious reformer. By 1806 the Saudi State had expanded enormously reaching nearly to Damascus in the N and including the holy cities of Mecca and Al Madīnah. An Ottoman-Egyptian-Albanian army was raised to eliminate the Saudi threat; by 1818 it had captured the capital Dariya, thereafter withdrawing leaving a trail of destruction. After a second punitive expedition in 1836 the Saud family resumed the building of the Saudi State.

2 Early in the First World War (1914–1918) Abdul Aziz Ibn Saud, the then ruling member of the Saud family, entered into treaty relations with Britain; by the 1926 Treaty of Jeddah he was recognised as the King of Hijāz

and of Najd and its Dependencies; the Kingdom of Saudi Arabia was proclaimed in 1932.

Government

1.77

1 Saudi Arabia is a hereditary monarchy ruled by the sons and grandsons of Abdul Aziz Ibn Saud in accordance with the Islamic Shari'ah Law. The line of succession passes from brother to brother according to age, although several sons of Ibn Saud have renounced their right to the throne. All sons and grandsons of Ibn Saud must be consulted before a new king accedes to the throne.

2 In 1992 a new Basic Law for the system of government was announced based on Shari'ah Law. The King and the Council of Ministers, established in 1953, retain executive power; a Consultative Council, consisting of a chairman and 120 members, appointed by the King, was set up to share power with and to question the Government, and make recommendations to the King; it does not have legislative powers. The King has the post of Prime Minister and can veto any decision of the Council of Ministers.

3 In 1993 the country was reorganised into 13 provinces each with a governor appointed by the King and a council of prominent local citizens to advise the governor on local government, budgetary and planning issues.

Population

1.78

1 In 2001 the estimated population of Saudi Arabia was 21 028 000.

Language

1.79

1 The official language is Arabic.

Physical features

1.80

1 The Nejd (plateau) extends over the centre of the Arabian peninsula, most of which lies in Saudi Arabia; the plateau includes the Nafud and Dahna deserts.

Industry and trade

1.81

1 Before the Second World War, at about the time the Kingdom of Saudi Arabia was proclaimed, the only source of overseas income was the money spent by pilgrims visiting the holy cities, but in 1938 oil was discovered in commercial quantities. The annual pilgrimage still, however, brings a significant income into the Kingdom. Saudi Arabia accounts for about a quarter of the worlds oil reserves and is the worlds largest oil exporter. Mineral exploitation of gold, silver, copper and other minerals is beginning. The nomadic population of the inland areas raise cattle and sheep; dry–land farming is now supplemented by extensive irrigation.

2 The main export is crude oil, but refined oil, petro-chemicals, fertilisers, plastic products and wheat are also exported; principal imports include foodstuffs, machinery and transport equipment.

Saudi Arabia along with Bahrain, Oman, Qatar, Kuwait and the United Arab Emirates began the implementation of a customs union in January 2003.

KUWAIT

General description

1.82

1 The State of Kuwait lies in the NW part of the head of Persian Gulf; it has total land area of 17 818 square km. Kuwait City, which includes Kuwait's nine off–lying islands, is the capital; in 2001 it had an estimated population of 388 532.

National limits

1.83

1 The State of Kuwait is bounded in E by Persian Gulf, in N and W by Iraq and S by Saudi Arabia. The Neutral Zone, jointly owned and administered by Kuwait and Saudi Arabia from 1922 to 1966, was partitioned between them in May 1996, but the exploitation of oil and other natural resources continues to be shared.

The State of Kuwait claims a 12 mile territorial sea; for further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.84

1 The ruling dynasty was founded by Shaikh Sabah al–Owel who ruled from 1756 to 1772. In 1899 the then Amir concluded a treaty with Britain in which he agreed that for British protection he would support British interests. In 1914 the British Government recognised Kuwait as an independent government under British protection. In June 1961 an agreement reaffirmed the independence and sovereignty of Kuwait and recognised the Government of Kuwait's responsibility for the conduct of internal and external affairs.

2 In August 1990 Iraqi forces invaded the country; after the expiry of the date set by the UN for their withdrawal an air offensive was launched by coalition forces, which was then followed by a land attack on the 24th February 1991. Kuwait City was liberated on the 26th February; on the 10th November 1994 Iraq recognised the independence and boundaries of Kuwait.

Government

1.85

1 In 1990 the National Council was established consisting of 50 elected members and 25 appointed by the Amir; it was replaced by a National Assembly in 1992 consisting of 50 elected members. Executive authority is vested in the Council of Ministers.

Population

1.86

1 In 2001 the estimated population of Kuwait was 1 971 000.

Language

1.87

1 The official language is Arabic; English is widely spoken as a second language.

Physical features

1.88

1 Kuwait is an almost flat and arid country; elevations range from sea level to over 300 m.

Industry and trade

1.89

1 Kuwait has around nine per cent of the worlds oil reserves and is a major crude and refined oil exporter; other exports include chemical fertilisers, ammonia and other chemicals, and building materials. Industries include boat building, fishing, food production, gasses, construction and petrochemicals.

Kuwait along with Bahrain, Oman, Qatar, Saudi Arabia and the United Arab Emirates began the implementation of a customs union in January 2003.

IRAQ

General description

1.90

1 Iraq lies on the W side of the head of Persian Gulf; it has a total land area of 437 400 square km. Baghdad is the capital city; in 1999 it had a population of 4 689 000.

National limits

1.91

1 Iraq is bounded in N by Turkey, E by Iran, SE by Persian Gulf, S by Kuwait and Saudi Arabia and W by Jordan and Syria. The maritime coast of Iraq extends from the the S end of Khawr Umm Qaşr to the mouth of Shatt al Arab within which the W bank only is in Iraqi territory as far as Khayyen Canal; above that point both banks belong to Iraq. See 9.103

Iraq claims a 12 mile territorial sea; for further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.92

1 Iraq, formerly Mesopotamia, was part of the Ottoman Empire from 1534 until 1916 when it became under British control. Under a League of Nations mandate, administered by Britain, Amir Faisal Ibn Hussain was crowned King in 1921; on Oct 3rd 1932 the mandate expired and Iraq became an independent country. On 14th July 1958 the Republic of Iraq was declared by a group of army officers and for the next four years Iraq was under the control of a military led Council of Sovereignty under General Qassim. In 1963 the National Council for the Revolutionary Command took office following the overthrow of General Qassim with a partial return to civilian government, but in July 1968 a coup was mounted by the Ba'ath Party. General Ahmed al Bakr became president, prime minister and chairman of a newly established nine member Revolutionary Command Council. In July 1979 Saddam Hussein, the then vice–president, became president in a peaceful transfer of power.

2 In September 1980 Iraq invaded Iran in a dispute over territorial rights in the Shatt al Arab which developed into a full scale war. After a UN arranged cease–fire and sponsored peace talks, Iraq offered peace terms and began removing her troops from Iranian territory.

On 2nd August 1990 Iraqi forces invaded Kuwait; after the expiry of the date set by the UN for their withdrawal an air offensive was launched by coalition forces, led by the USA, which was followed on the 24th February 1991 by a land attack; Kuwait City was liberated on the 26th February. On the 10th November 1994 Iraq recognised the independence and boundaries of Kuwait.

3 Relations with the USA deteriorated over the following years. Iraq was invaded in March 2003 by a coalition of forces led by the USA, after which followed a period of instability. An interim government took sovereignty in June 2004; the first free elections were held in the spring of 2005.

Population

1.93

1 In 2001 the estimated population of Iraq was 23 584 000.

Language

1.94

1 The national language is Arabic; other languages spoken include Kurdish (official in Kurdish regions), Assyrian and Armenian.

Physical features

1.95

1 Iraq is mostly desert with mountainous areas in N; elevations range from 3600 m to sea level.

Industry and trade

1.96

1 Iraq's major industry is oil production which was nationalised in 1972, but years of dictatorship, warfare and UN sanctions seriously damaged production. Since the end of Saddam Hussein's regime the reconstruction of the oil industry, electricity supply and other essential infrastructure has progressed, but has been hampered by violence and instability; other industries include the production of textiles, chemicals and construction materials.

2 Agriculture in Iraq has potential, there is rich soil but it can only be cultivated if irrigated; there are several canal systems, dams and other irrigation works, the main producing area is the totally irrigated riparian belt of the Shatt al Arab; wool is an important export.

IRAN

General description

1.97

1 The S coast of the Islamic Republic of Iran extends from Khorramshahr (9.167) on the E bank of the Shatt al Arab, through Persian Gulf and Gulf of Oman, to the E boundary of Iranian district of Makrān at the head of Gwatār Bay (4.2); Iran has a total land area of 1 622 000 square km. Tehran is the capital city; in 1996 it had a population of 6 758 845.

National limits

1.98

1 The Islamic Republic of Iran is bounded in N by USSR and the Caspian Sea, in the E by Afghanistan and Pakistan, and in the W by Iraq and Turkey.

The Islamic Republic of Iran claims a 12 mile territorial sea, a 24 mile contiguous zone adjacent to their territorial seas and a 200 mile exclusive economic zone to median lines and boundaries. For further information see the *Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

History

1.99

1 Persia was ruled by Shahs as an absolute Monarchy until 1906 when the first constitution was granted and a national assembly established; Reza Khan took control after a coup in 1921 becoming Reza Shah Pahlavi in 1925. The country became known as Iran as closer relations with Europe developed in the mid–1930's. In 1941 Mohammed Reza Pahlavi was sworn in before the Majiles on the abdication of his father after the occupation of the country by the Allies because of his fathers support for Germany in the Second World War. Mohammed Reza Pahlavi was subsequently elected Shah; he, along with his family, left Iran on 17th January 1979, dying in Egypt the following year. Iran became an Islamic Republic following the return from exile of Ayatolla Ruhollah Khomeini in February 1979.

2 In September 1980 Iran was invaded by Iraq in a dispute over territorial rights in the Shatt al Arab which developed into a full scale war. After a UN arranged cease–fire, followed by UN sponsored peace talks, Iraq offered peace terms and began removing her troops from Iranian territory.

Government

1.100

1 The leader of the Islamic Republic of Iran is elected by a Council of Experts whose 83 members are popularly elected every eight years. The President, who is the Chief Executive, is directly elected for a four year term, renewable once. Ministers are nominated by the President and must obtain a vote of confidence from the Majlis which comprises 290 representatives who are directly elected for a four year term. Laws passed by the Majlis must be approved by the twelve member Guardian Council. In November 1997 President Khatami announced the establishment of the Committee for the Implementation and Supervision of the Constitution, a five member body to ensure the Constitution was abided by and that the people's rights were respected.

Population

1.101

1 In 2001 the population of Iran was 71 369 000.

Language

1.102

1 The national language is Farsi or Persian spoken by nearly a half of the population, just over a quarter speak related languages including Kurdish and just less than a quarter, primarily in NW, speak Turkic languages.

Physical features

1.103

1 A large portion of Iran is desert; elevations range from over 5600 m to sea level.

Industry and trade

1.104

1 The largest sources of revenue are the oil production and refining industries, other important industries include the extract of minerals, automotive, textile, wood and fibre, paper and cardboard, chemicals, machinery and equipment, copper, steel and aluminium.

Main imports include machinery, motor vehicles, iron and steel, chemicals, pharmaceuticals and food; exports in addition to petroleum and crude oil include carpets, pistachios, leather and caviar.

PRINCIPAL PORTS, HARBOURS TERMINALS AND ANCHORAGES

1.105

Oman

Place and position	*Remarks*
Qalhāt LNG Terminal (22°40′N 59°25′E) (3.25)	LNG terminal
Port Sultan Qāboos) (23°38′N 58°34′E) (3.71)	Commercial port
Mīnā' al Faḩl Offshore Oil Terminal (23°39′N 58°32′E) (3.98)	Offshore Oil terminal and anchorage
Port Sohar (24°32′N 56°35′E) (3.162)	New commercial port

United Arab Emirates

Place and position	*Remarks*
Khawr Kalbā (25°02′N 56°22′E) (3.170)	Small port
Port of Fujayrah (25°11′N 56°22′E) (3.174)	Principal commercial port, container terminal and anchorages
Vopak ENOC TankerTerminal (25°12′N 56°22′E) (3.205)	Oil terminal
Port of Khawr Fakkān (25°21′N 56°22′E) (3.230)	Commercial port, container trans-shipment terminal and anchorages
Mīnā' Saqr (25°59′N 56°03′E) (7.19)	Commercial port
Ḩulaylah Oil Terminal (25°59′N 55°56′E) (7.26)	Oil terminal
Ra's al Khaymah (25°48′N 55°57′E) (7.31)	Small commercial port
Umm al Qaywayn (25°35′N 55°34′E) (7.37)	Small commercial port
Sharjah Offshore Terminal (25°35′N 55°24′E) (7.55)	Oil terminal
Ḩamrīyah (25°28′N 55°29′E) (7.62)	LPG terminal and commercial port
‘Ajmān (25°26′N 55°27′E) (7.69)	Small commercial port with dry dock and repair facilities
Mubarek Oil Terminal (25°49′N 55°11′E) (7.76)	Oil terminal
Sharjah (25°22′N 55°22′E) (7.84)	Commercial port
Khawr Dubayy (25°16′N 55°18′E) (7.145)	Small commercial port
Dubai (25°16′N 55°18′E) (7.110)	Principal commercial port with dry docks, repair facilities, and anchorages
Fateh Oil Terminal (25°35′N 54°26′E) (7.164)	Oil terminal
Mīnā' Jabal ‘Ālī (25°00′N 55°03′E) (7.176)	Principal commercial port
Abu Dhabi (24°29′N 54°22′E) (7.207)	Principal commercial port, oil terminal and anchorage
Jazīrat Dās Terminals (25°09′N 52°54′E) (7.263)	Onshore oil and LNG/LPG terminals and sulphur loading berth, offshore oil terminal and anchorages
Jazīrat Zarakkūh Oil Terminal (25°01′N 52°59′E) (7.284)	Oil terminal
Ḩālat al Mubarraz OilTerminal (24°26′N 53°32′E) (7.292)	Oil terminal
Jabal Az̧ Z̧annah (24°11′N 52°38′E) (7.300)	Oil terminal with Ro–Ro facilities and anchorages
Ar Ru'ays (24°08′N 52°44′E) (7.300)	Oil, LNG and bulk cargo terminals small commercial basin and anchorages
Jazīrat Dalmā (24°30′N 52°18′E) (7.344)	Small offshore terminal

Qatar

Place and position	*Remarks*
Doha (Ad Dawḩah) (25°17′N 51°32′E) (7.382)	Commercial and naval port and anchorage
Mesaieed (25°00′N 51°33′E) (7.414)	Commercial port, oil terminal ship yard and anchorage
Ra’s Laffān (25°55′N 51°35′E) (7.467)	LNG terminal and commercial port and anchorages
Jazīrat Ḩālūl Oil Terminal (25°40′N 52°25′E) (7.357)	Oil terminal
Al Shaheen Oil Terminal (26°35′N 51°59′E) (7.462)	Oil terminal
Al Rayyan Oil Terminal (26°39′N 51°34′E) (7.463)	Oil terminal

Bahrain

Place and position	*Remarks*
Mīnā’ Salmān (26°12′N 50°37′E) (8.50)	Principal commercial port with nearby dry docks and repair facilities
Port of Sitrah (26°10′N 50°40′E) (8.50)	Oil and bulk cargo terminals

Saudi Arabia

Place and position	*Remarks*
Ra’s Tannūrah (26°38′N 50°10′E) (8.112)	Principal alongside oil terminal
Ra’s al Ju‘aymah (26°49′N 50°00′E) (8.144)	Principal oil and LPG terminals
Ad Dammām (26°30′N 50°12′E) (8.173)	Principal commercial port
Ra’s al Ghār (26°54′N 49°52′E) (8.219)	Small specialist port for import of building materials
Jubail (27°01′N 49°40′E) (8.239)	Major commercial port and oil terminal
King Abdul Aziz Naval Base (26°58′N 49°42′E) (8.264)	Naval base
Port Tanāqīb (27°47′N 48°52′E) (8.276)	Supply vessel base
Zuluf Anchorage (28°18′N 49°15′E) (8.290)	Oilfield anchorage
Marjan Anchorage (28°20′N 49°43′E) (8.290)	Oilfield anchorage
Mīnā’ Ra’s Mish’āb (28°07′N 48°38′E) (8.291)	Military supply port
Ra’s al Khafjī Oil Terminal (28°27′N 48°36′E) (8.314)	Oil terminal
Port of Ra’s al Khafjī (28°25′N 48°32′E) (8.337)	Small commercial port

Kuwait

Place and position	*Remarks*
Mīnā’ Az Zawr (Mīnā’ Sa’ūd) Oil Terminal (28°45′N 48°27′E) (8.361)	Oil terminal
Mīnā’ ‘Abd Allāh (Mina Abdulla) Sea Island Oil Terminal (29°02′N 48°12′E) (8.387)	Oil terminal
Mīnā’ Ash Shu‘aybah (Shuaiba) (29°03′N 48°10′E) (8.415)	Commercial port and oil terminal
Mīnā’ al Aḩmadī Oil Terminal (29°04′N 48°09′E) (8.444)	Major oil terminal
Mīnā’ Ash Shuwaykh (Al Kuwayt Harbour) (29°21′N 47°56′E) (8.477)	Commercial port

Iraq

Place and position	*Remarks*
Khawr al Amaya Oil Terminal (29°47′N 48°48′E) (9.75)	Oil terminal
Al Başrah (Al Bakr) Oil Terminal (29°41′N 48°49′E) (9.90)	Oil terminal
Al Fāw (29°59′N 48°28′E) (9.135)	Depot and administration centre for the Port of Al Başrah
Al Başrah (30°31′N 47°50′E) (9.190)	Commercial port
Umm Qaşr (30°03′N 47°56′E) (9.236)	Commercial port
Az Zubayr (30°11′N 47°53′E) (9.263)	Commercial port

Iran

Place and position	*Remarks*
Soroosh Oil Terminal (29°01′N 49°27′E) (2.28)	Oil terminal
Chāh Bahār (25°18′N 60°38′E) (4.21)	Commercial port, naval base close W and anchorage
Jāsk (25°39′N 57°46′E) (4.57)	Small commercial port and anchorage
Bandar–e Shahīd Bāhonar (27°09′N 56°12′E) (5.15)	Commercial port
Bandar–e Shahīd Rajāī (27°06′N 56°04′E) (5.50)	New commercial port
Qeshm anchorage (26°30′N 55°40′E) (5.132)	Ship to ship transfer and bunkering anchorage
Jazīreh–ye Qeys (26°32′N 53°58′E) (6.19)	Waiting anchorage
Jazīreh–ye Lavan Oil Terminal (26°47′N 53°20′E) (6.26)	Oil terminal
Būshehr (28°58′N 50°50′E) (6.79)	Commercial port and naval base

Place and position	*Remarks*
Jazīreh–ye Khārk (29°14′N 50°19′E) (6.122)	Island on which are situated major oil terminals
Barkan Oil Terminal (29°45′N 50°10′E) (6.113)	Oil terminal
Jazīreh–ye Sirrī Oil Terminal (25°54′N 54°33′E) (7.158)	Oil terminal
Bandar Imam Khomeynī (30°25′N 49°04′E) (9.19)	Major commercial port
Bandar–e Māhshahr (30°27′N 49°10′E) (9.43)	Alongside oil terminal
Ābādān (30°20′N 48°17′E) (9.142)	Coastal transhipment oil terminal and bunker port
Khorramshahr (30°26′N 48°10′E) (9.167)	Commercial port

PORT SERVICES – SUMMARY

Docking facilities

1.106

1 **Oman**

Said Bin Sultan Naval Base. Synchrolift; maximum size 5750 tons (3.146).

United Arab Emirates

‘Ajmān. Dry dock; maximum size 20 000 tons. Slipways up to 3000 tons (7.69).

Ash Shāriqah. Dry dock maximum size 850 tons (7.84).

Khawr Dubayy. Synchrolift; maximum size 4275 tons (7.145)

Dubayy. Dry docks; maximum size 1 000 000 tons. Floating dock lift 40 000 tons (7.110).

Abū Z̧aby. Ship–hoists of up to 500 tons (7.207).

2 **Qatar**

Mesaieed. Synchrolift; maximum size 500 tons. Dry dock 3600 tons (7.414).

Doha. Slipway 200 tons (7.382).

Bahrain

Mīnā’ Salmān. Dry dock maximum size 500 000 tons. Floating docks lift 120 000 tons Slipways 1000 tons (8.50).

Saudi Arabia

Ad Dammām. Floating docks maximum size 22 000 tons. Synchrolift of 1500 tons (8.173).

Al Jubayl. Slipway 1000 tons (8.239).

King Abdul Aziz Naval Base. Synchrolift (8.264).

3 **Kuwait**

Mīnā’ Ash Shuwaykh. Floating dock lift 14 000 tons. Synchrolift 2000 tons. Slipway (8.477).

Iraq

Al Başrah. Floating dock lift 4000 tons. Slipways at shipyard (9.190).

4 **Iran**

Bandar–e Shahīd Bāhonar. Dry docks in Naval Basin (5.15).

Bandar–e Shahīd Rajāī. Slipway 1500 tons and floating dock (5.50).

Būshehr. Synchrolift maximum size 2500 tons (6.79).

Bandar Imam Khomeynī. Slipway maximum size 1500 tons (9.19).

Other facilities

Deratting

1.107

1 Deratting and deratting certificates:

Hamriyah LPG Terminal and Free Trade Port (7.62).
‘Ajmān (7.69).
Ash Shāriqah (7.84).
Dubayy (7.110).
Mīnā’ Jabal ‘Ālī (7.176).
Abū Z̧aby (7.207).
Doha (7.382).

1.108

1 Exemption certificates only:

Port Sultan Qāboos (3.71).
Fujayrah (3.174).
Khawr Fakkān (3.230).
Chāh Bahār (4.21).
Bandar–e Shahīd Bāhonar (5.15).
Būshehr (6.79).
Jazīreh–ye Khārk (6.128).
Ra’s al Khaymah (7.31).
Mīnā’ Salmān and Port of Sitrah (8.50).
2 Mīnā’ ‘Abd Allāh (8.387).
Mīnā’ Ash Shu‘aybah (8.415).
Mīnā’ Ash Shuwaykh (8.477).
Bandar Imam Khomeynī (9.19).
Al Başrah (9.190).
Umm Qaşr (9.236).

Measured distance

1.109

1 Bandar Jişşah (3.53).
Al Başrah (9.190).

NATURAL CONDITIONS

MARITIME TOPOGRAPHY

General remarks

1.110

1 Persian Gulf is comparatively shallow with depths of less than 100 m; in the Strait of Hormuz less than 90 m. It is approached by way of the Gulf of Oman, which may be considered as an arm of the Arabian Sea extending in a NW direction from a line joining Ra's al Ḩadd (22°32′N 59°48′E), near the E extremity of Arabia, and Gwatār Bay, 185 miles NE; thence through the Strait of Hormuz.

Coastal features

1.111

1 **South–west shore of Gulf of Oman** is in general, steep–to with few off–lying shoals, though there are some islets near Muscaţ (23°36′N 58°36′E) about 90 miles NW of Ra's al Ḩadd, and others about 30 miles farther WNW. With the exception of Al Bāţina (3.127), a wide fertile plain extending from the coast to the foot of the mountains for about 150 miles NW of Muscaţ, the interior of the country is arid desert and mountainous.

2 **North shore of Gulf of Oman** extends from Gwatār Bay (25°07′N 61°36′E) to Ra's al Kūh, 230 miles W; thence N to Khowr–e Mīnāb (27°07′N 56°48′E); it is, in general, clear of off–lying dangers except for Baklang Rock (25°18′N 60°14′E) lying 2½ miles offshore. Owing to the small rainfall, the salt nature of the soil, and the physical conformation of the country, it is almost entirely desert, presenting a succession of arid clay plains impregnated with saline matter, and intersected by watercourses. From these plains rise precipitous table–hills, varying in elevation; farther inland, other ranges of mountains of varying height, extend parallel with the coast, all appear to be devoid of vegetation. The coast is barren and indented, but its most characteristic feature is the repeated occurrence of promontories and peninsulas of white clay cliffs capped with coarse limestone or shelly breccia, all the summits of which are more or less table–topped in form. The intervening stretches of coast are low, in places rising to high white sandhills, or sand dunes, on which are small bushes and tufts of grass; in many places the coast is merely a very low strip of sand, backed by extensive salt–water swamps; off such stretches of coast caution is necessary as the distance offshore is very liable to be over estimated.

3 There are no perennial rivers; streams, which are frequently dry or nearly so except after rain, become salt–water creeks only navigable by small boats. The is no vegetation except, here and there, a clump of date palms near a village or settlement, in the vicinity of which there may be a small amount of cultivation.

4 **North–east shore of Persian Gulf** is mountainous, and in most places steep–to; it presents a series of rugged and precipitous mountain ranges extending, in general, nearly parallel with the coast. These mountain ranges increase in height as they recede inland and, being visible at great distances, are good marks; some are even snow capped for a great part of the year. Wide valleys separate the mountains, and there are belts of low land of varying width, between them and the sea, called by the Iranians the Garmsir or winter pastures, which being at the S foot of the mountains, and watered by no river, are very hot in summer.

5 **South and south west shores of Persian Gulf** are, with the exception of the NW side of the Oman peninsula, exceedingly low; from the peninsula, for nearly its whole length, reefs and shoals extend, in places, up to 50 miles offshore. The Arabian coast is, for the most part, a desert of white sand; extensive tracts are quite uninhabited. Near villages, or where there are inhabitants, there are generally date groves, some of which are extensive.

6 **Islands in Persian Gulf** are numerous, the two largest being Jazīreh–ye Qeshm (26°50′N 55°55′E) off the Iranian coast on the N side of the Strait of Hormuz and Bahrain (26°04′N 50°33′E) off the NW side of Qatar, a large peninsula in the SW corner of Persian Gulf. Some are merely sand islets, while many are at least partly of volcanic origin.

7 **Head of Persian Gulf** is low alluvial land made up from the deltas of the Tigris, Euphrates, Kārūn and other rivers. The NW end of Persian Gulf is probably silting up owing to the large amount of alluvium deposited by these rivers. The water in the upper part of Persian Gulf is of higher salinity than that in the open ocean.

Seabed

1.112

1 Persian Gulf is a shallow tectonic depression nearly 1000 km long with an average depth within of about 40 m; depths of over 100 m lie in its entrance and in the outer part of the Strait of Hormuz. The basin is markedly asymmetrical, the slope on the Arabian side being much gentler than that of the Iranian side; the deepest waters lie close to the Iranian coast, especially in the E half of the basin.

2 Inflow from rivers is limited to the Tigris, Euphrates and Kārūn delta, chiefly in winter and spring, and to the rivers from the mountainous Iranian coast where terrigenous sediments contrast with the carbonate sands forming in the shallow sea fronting the low deserts of Arabia. This pattern is maintained by the currents associated with the prevailing wind, which blows along the axis of Persian Gulf from the NW and is known locally as the *shamāl*. Mud is more frequent on the Iranian side of the basin; sand is more common on the Arabian side; on the pearl banks the bottom is hard sand, coral and rocks; in many places off the Arabian coast, especially N of Bahrain, it is white clay.

3 There are numerous islands, mostly salt domes, as well as numerous shoals and reefs; the latter often support coral which provides a local source of sediment.

Sandwaves. In many parts of Persian Gulf the bottom is sand and sandwaves are known to exist; see Sandwaves in *The Mariner's Handbook*.

CURRENTS TIDAL STREAMS AND FLOW

Currents

General

1.113

1 Diagrams 1.113.1 and 1.113.2 depict the general pattern of the currents during January (NE monsoon) and July (SW monsoon). The currents generated by these monsoon winds only affect the Arabian Sea, and to a much more limited extent Gulf of Oman. In Persian Gulf, and through the Strait of Hormuz, the currents are mostly weak and variable, and with tidal streams predominating.

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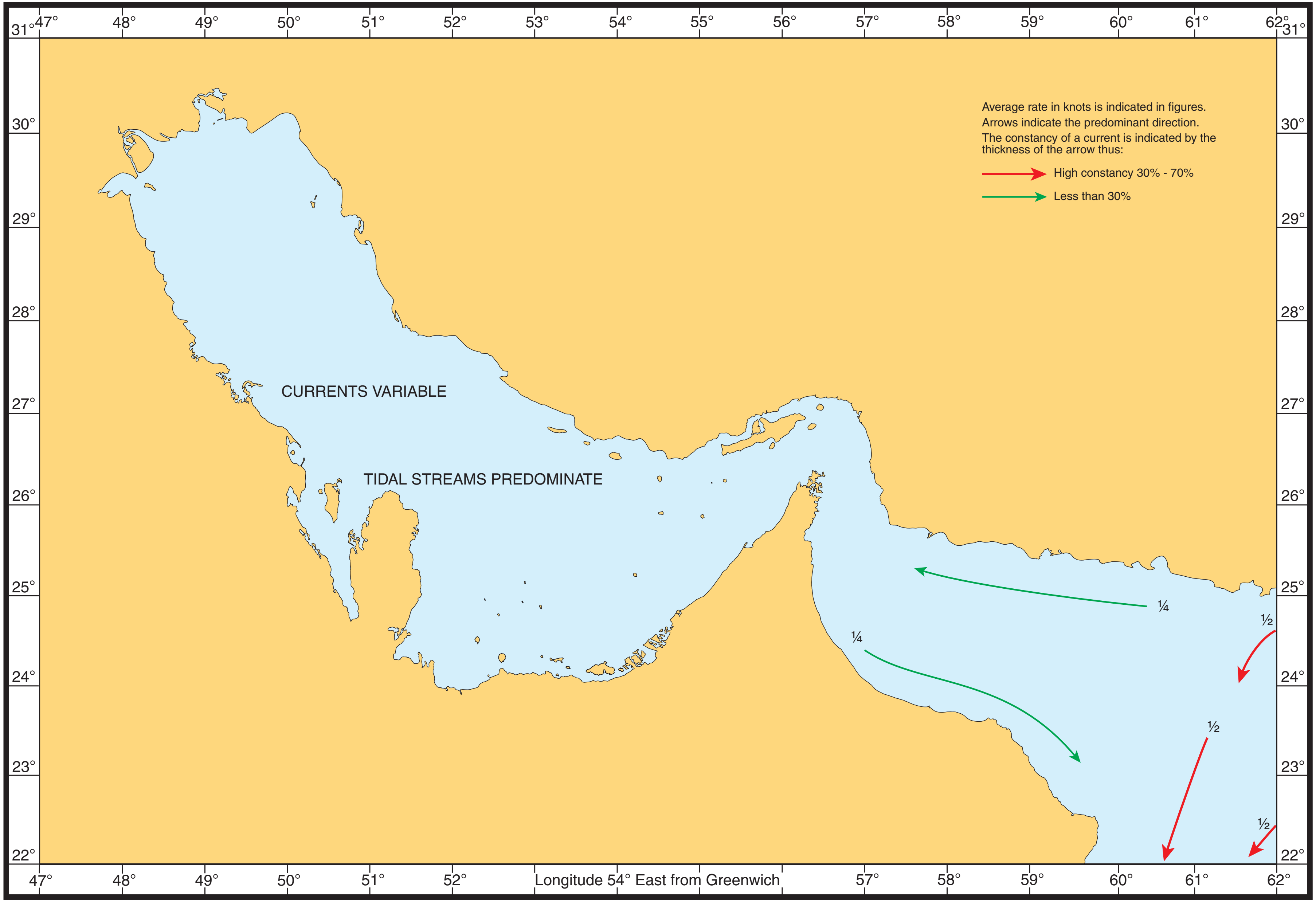
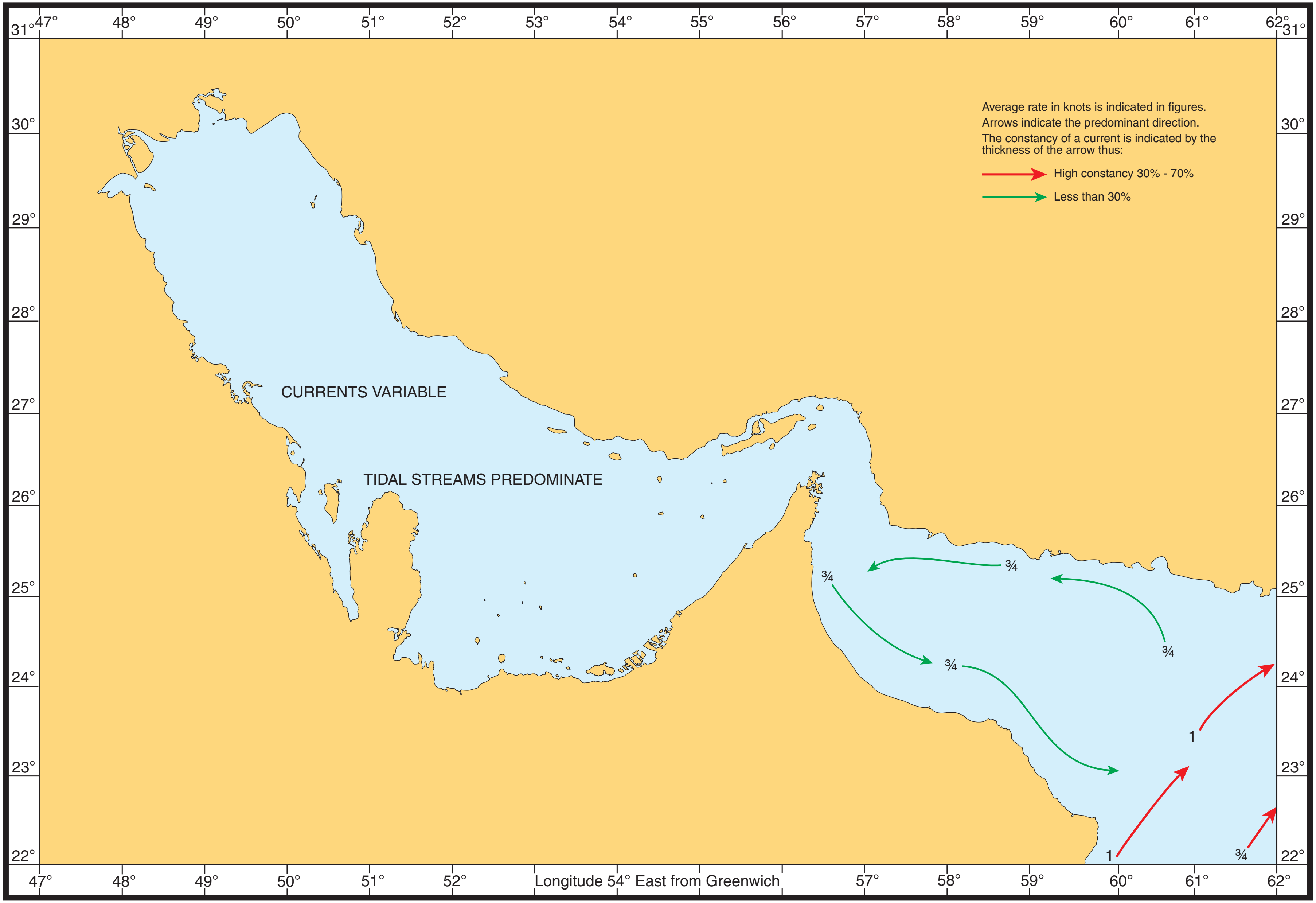

Average rate in knots is indicated in figures.
Arrows indicate the predominant direction.
The constancy of a current is indicated by the thickness of the arrow thus:
High constancy 30% - 70%
Less than 30%
CURRENTS VARIABLE
TIDAL STREAMS PREDOMINATE
¼
¼
½
½
½
31°
30°
29°
28°
27°
26°
25°
24°
23°
22°
47°
48°
49°
50°
51°
52°
53°
54°
55°
56°
57°
58°
59°
60°
61°
62°
Longitude 54° East from Greenwich

Vector mean currents - JANUARY (1.113.1)


CURRENTS VARIABLE
TIDAL STREAMS PREDOMINATE
Average rate in knots is indicated in figures.
Arrows indicate the predominant direction.
The constancy of a current is indicated by the thickness of the arrow thus:
High constancy 30% - 70%
Less than 30%
¾
¾
¾
¾
¾
¾
1
1
Longitude 54° East from Greenwich
47°
48°
49°
50°
51°
52°
53°
54°
55°
56°
57°
58°
59°
60°
61°
62°
31°
30°
29°
28°
27°
26°
25°
24°
23°
22°

Vector mean currents - JULY (1.113.2)

Current diagrams

1.114

1 In the current diagrams 1.113.1 and 1.113.2, arrows indicating the Predominant Direction, Average Rate and Constancy are shown, which are defined as follows:

Predominant direction. The mean direction within a continuous 90° sector containing the highest proportion of observations from all sectors.

2 Average rate of the highest 50% of all observations in the predominant sector as indicated by the figures in the diagram. It is emphasised that rates above and below those shown may be experienced.

Constancy, as indicated by the thickness of the arrows, is a measure of its persistence; e.g. low constancy implies marked variability in rate and, particularly, the direction of the current.

Gulf of Oman and Iranian Makrān coast

1.115

1 The currents across the entrance to Gulf of Oman, between Ra's al Ḩadd (22°32′N 59°48′E) and Gwatār Bay, 185 miles NE, set mainly SW from November to January and NE between February and October. The average rate is around ½ kn, but at the height of the SW monsoon during July and August the current sets NE with an average rate of about 1 kn.

2 Within Gulf of Oman currents are mostly light and variable but do have a tendency to flow in an anti–clockwise direction, particularly between April and October. The average rate is around ¼ kn but on occasions increases to ¾ kn in July and August.

Persian Gulf

1.116

1 Within Persian Gulf tidal streams predominate but, with strong persistent NW winds, a SE-setting current will be induced that will enhance the strength of the out-going tidal stream and decrease, or even reverse, the in-going stream of the flood tide.

Tropical cyclone–derived currents

1.117

1 Within the area covered by this volume, tropical storms or cyclones are rare and are most likely to affect the Arabian Sea E of Gulf of Oman during May and June. No tropical storms have been reported in Persian Gulf.

Generally only slow-moving tropical storms or cyclones produce currents of around 2 kn, and which set in the direction to which the wind is blowing. However, if a tropical storm is located near a coast then higher rates are possible due to the piling up of water against the coastline, see *The Mariner's Handbook*.

Tidal streams

General

1.118

1 In Gulf of Oman and on the coast of Makrān the tides have a marked diurnal inequality. The average range is from 1·5 m to 2·0 m, with a maximum of about 3·0 m. Within Persian Gulf the tidal regime is complex, except at the head of Persian Gulf where ranges up to 4·0 m may be encountered, the maximum range is generally about 2·0 m.

2 The two principal constituents of the semi–diurnal tide each have two amphidronic points (a point where the tide has no amplitude), one in the central W part of Persian Gulf at about 28°30′N 49°40′E and the other in the S part at about 24°40′N 52°45′E; in these two areas the tides are normally diurnal with only one high and one low water during a 24 hour period, but conditions can change rapidly over a short distance; in extreme cases, high water at a port can coincide with low water at a position in the open sea less than 50 miles distant.

3 The two principal constituents of the diurnal tide both have an amphidronic point about 40 miles N of the Qatar peninsula; in this area and around Bahrain and Dawḩat Salwá, the tide is predominantly semi–diurnal, though in the latter region the maximum range is less than 1 m. Throughout the rest of Persian Gulf there is considerable, but varying, diurnal inequality.

Tidal height predictions see *Admiralty Tide Tables Volume 3* and *Admiralty Co–Tidal Atlas Persian Gulf NP 214*.

Tidal streams

1.119

1 The information available on tidal streams is meagre, but it is apparent that the surface drift due to winds is sometimes sufficient to overcome opposing tidal streams.

In Gulf of Oman, off the Iranian coast W of Gwatār Bay, tidal streams set W during the period of the in–going stream and E with the out–going; E of Gwatār Bay the reverse is the case. Off the Oman coast in the S part of Gulf of Oman, the streams are almost imperceptible. In the N part of Gulf of Oman the streams increase in rate and set mainly NNW and SSE. On the W coast they attain their greatest rates, up to 4 kn and possibly more at extreme tides. On the E coast the streams are less strong, between 2 and 3 kn.

2 Within Persian Gulf the complexity of the tides, previously described (1.118), is reflected to some extent in the tidal streams. Although the diurnal inequality of the streams, which cause one of the two streams setting in a particular direction during a 24 hour period to be considerably stronger than the other, is usually less than that of the tides, it is still considerable; this effect is most marked when the moon has a high declination; in extreme cases it produces diurnal tides which turn only twice in 24 hours. This diurnal inequality is most marked in the vicinity of Great Pearl Bank (7.4), E of Qatar peninsula, NW and E of the bank it diminishes. In general, within Persian Gulf, the tidal streams set W with the in–going stream, dividing N of Qatar peninsula to set NW towards the head of Persian Gulf and S, past Bahrain into Dawḩat Salwá; the reverse occurs with the out–going stream. Due to the difference in characteristics between the streams and tides, the time of the turn of the stream and its rate at any locality, bear no fixed relation to the vertical movement of the tide in that locality.

SEA AND SWELL

General

1.120

1 For definitions of sea and swell, and the terminology used in describing their characteristics, see *The Mariner's Handbook*.

Sea conditions

1.121

1 Sea waves generated by the wind can be very variable in direction, but are predominantly NW throughout the year in Persian Gulf and with the frequency of strong winds being marginally higher in winter and spring. Sea waves are generally lower than over more open oceans, but become fully developed over the SE part of Persian Gulf with NW winds and, to a more limited extent, over the NW part of Persian Gulf with SE winds.

2 In Strait of Hormuz strong tidal streams running at as much as 4 kn can cause opposing seas to steepen and break with strong NW or SE winds. With these strong tides even a moderate opposing wind may result in a much higher sea state than would normally be expected. Winds are generally more variable in direction in the Strait but with a small predominance of W winds in winter and spring and SE winds in summer.

3 Over the E approaches to Gulf of Oman, there is a pronounced monsoonal character to the wind with sea waves mainly from the S in summer and from the NNW in winter, and with the highest frequency of strong winds occurring in summer.

Swell conditions

1.122

1 Diagrams 1.122.1 and 1.122.2 give swell roses for several areas in January and July. The roses show the percentage of observations recording swell waves for various directions and several ranges of wave height.

The predominant directions of the swell waves are similar to those of the sea waves. In Persian Gulf they are predominantly low NW throughout the year and with an increase in frequency of low SE swells in the NW part of Persian Gulf in January. In the approaches to Gulf of Oman the swells are predominantly moderate S in July but low and variable in January.

SEA WATER CHARACTERISTICS

Salinity

1.123

1 The arid sub–tropical climate of the area, with its high summer temperatures and persistent winds, stimulates evaporation. Some of the highest open sea–surface temperatures, in excess of 30°C during the summer monsoon, and salinities in the world are observed in this region. Surface salinities in the central part of Persian Gulf average 37 to 40, while shallow parts of the United Arab Emirates coast in the S part of Persian Gulf have salinities of 40 to 50, rising to 60 or 70 in remote lagoons and bays such as Dawḩat Salwá (25°10′N 50°40′E) formed between the Arabian coast and the Qatar peninsula. See *The Mariner's Handbook* for an explanation of Salinity as applied to sea–water.

Density

1.124

1 Density of the water in Persian Gulf, because of its high salinity, is very high, particularly during the winter monsoon, when it is also cooler. Density ranges, in winter, from 1·026 gms/cm^3 at the entrance to the Persian Gulf to 1·030 gms/cm^3 at its head, similarly in summer from 1·024 gms/cm^3 at its entrance to 1·027 gms/cm^3 at its head.

Sea surface temperature

1.125

1 Diagrams 1.125.1 to 1.125.4 show the mean sea surface temperatures for February, May, August and November. The seasonal range is greatest in NW Persian Gulf with a mean sea surface temperature of around 17°C in winter and about 32°C in summer, and in the S part of Persian Gulf it varies from around 21° to 22°C in winter to 34°C in summer. In the extreme SE of the area near Ra's al Ḩadd, (22°32′N 59°48′E) the sea surface temperature rises from around 24°C in winter to 29°C in April but decreases to around 26°C in summer due to upwelling of colder sub–surface water due to the usually strong S to SW monsoon winds.

Variability

1.126

1 Variations in mean sea surface temperatures do occur on occasions but seldom exceed 2°C. However large variations from 4° to 5°C may be experienced on rare occasions in the NW part of Persian Gulf in January and near Ra's al Ḩadd in July, normally due to a strengthening of the SW monsoon. In shallow inshore waters the temperature variations may also be higher. Substantial changes in the mean sea surface temperatures occur in the NW part of Persian Gulf when the estuaries of the Euphrates and the Tigris are inundated with flood water as the snow melts in N Iraq and Turkey in spring. Frequent pools of cooler water also develop in this area during the brief spells of winter rain.

2 Average mean sea surface temperatures seldom differ by more than 2°C from that of the overlying mean air temperature. However, the rapid rise of air temperatures in May, may give rise to a 4° to 5°C higher mean air temperature difference for a while. Similarly, in winter, incursions of very cold air from Iraq and Iran may result in the mean air temperature falling by more than 2°C below that of the mean sea surface temperature.

CLIMATE AND WEATHER

General information

1.127

1 The following information on climate and weather should be read in conjunction with the information contained in *The Mariner's Handbook*, which explains in more detail many aspects of meteorology and climatology of importance to the mariner.

Weather reports and forecasts, that cover the area, are regularly broadcast in a number of different languages including English; for details see *Admiralty List of Radio Signals Volume 3.*

General conditions

1.128

1 The summers are very hot and dry over the whole of Persian Gulf and Gulf of Oman. The moist SW monsoon affects the area to the E of Gulf of Oman in summer and with the highest temperatures in this area occurring in the brief transition periods, between the NE and SW monsoons, in May and June and again in September and October. Winter is everywhere much cooler although it usually remains mainly fine with only brief periods of unsettled weather.

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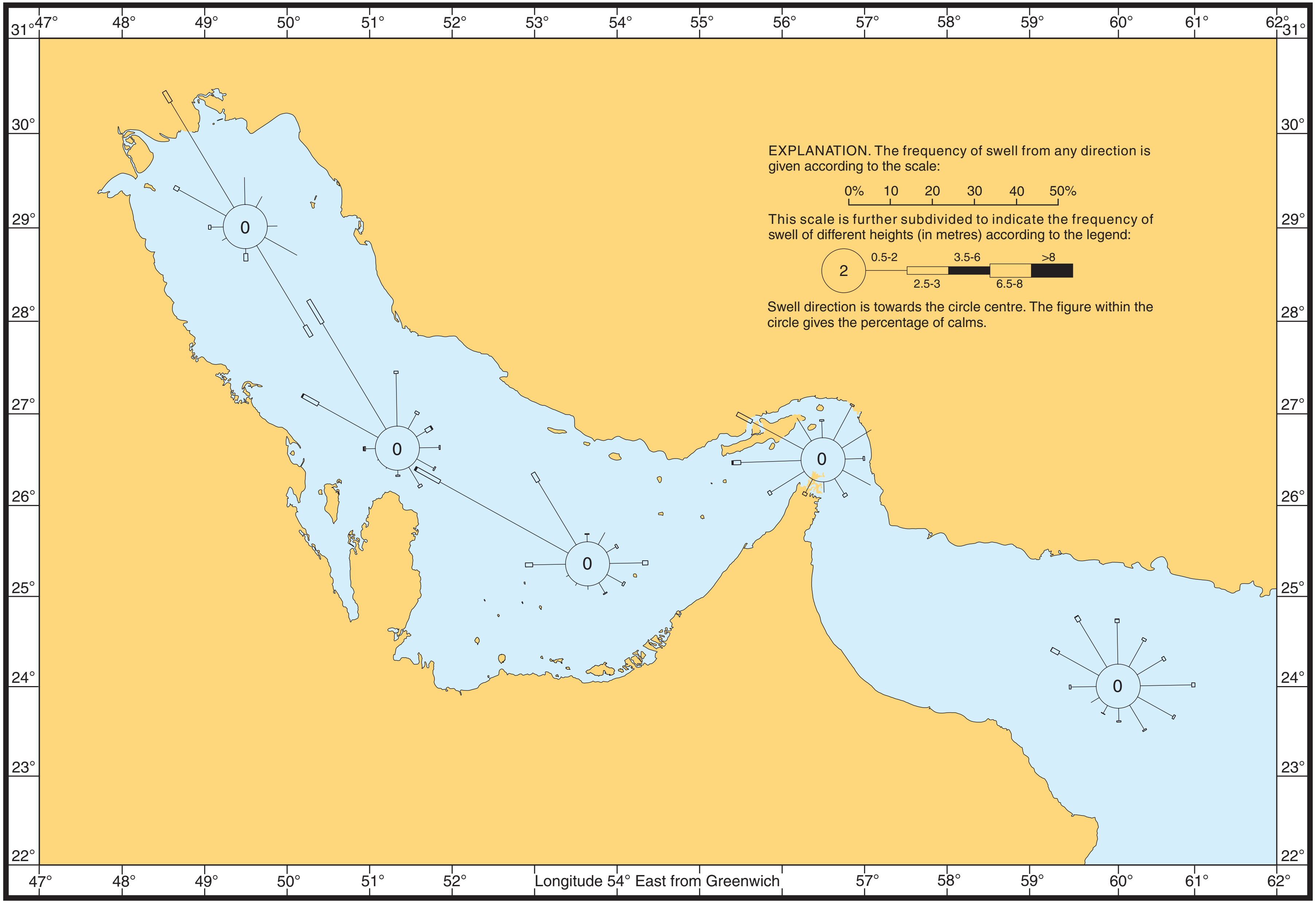
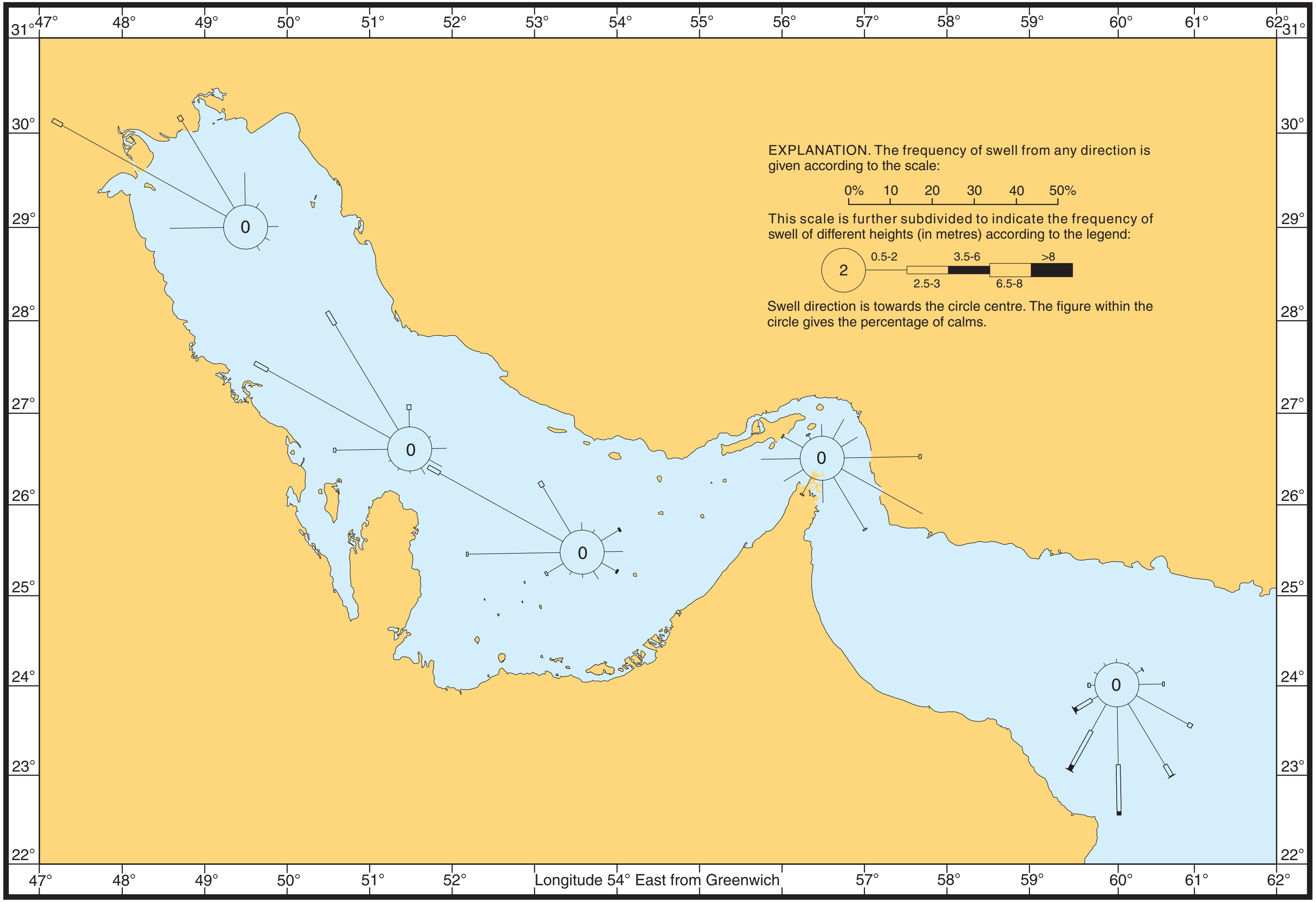


EXPLANATION. The frequency of swell from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of swell of different heights (in metres) according to the legend:

Swell direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Swell Distribution - JANUARY (1.122.1)



EXPLANATION. The frequency of swell from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of swell of different heights (in metres) according to the legend:

Swell direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Swell Distribution - JULY (1.122.2)

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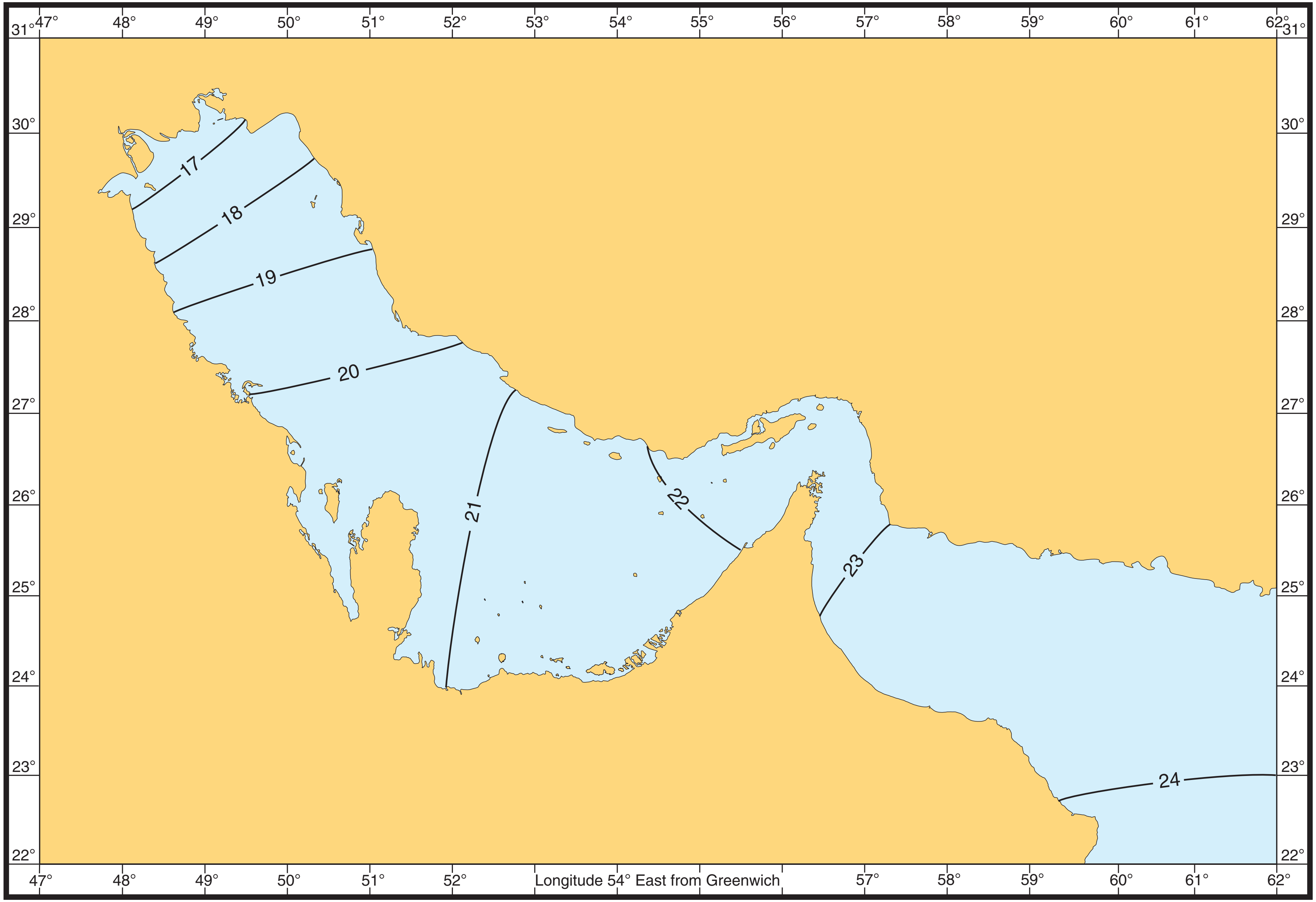

Mean sea surface temperature (°C) FEBRUARY (1.125.1)

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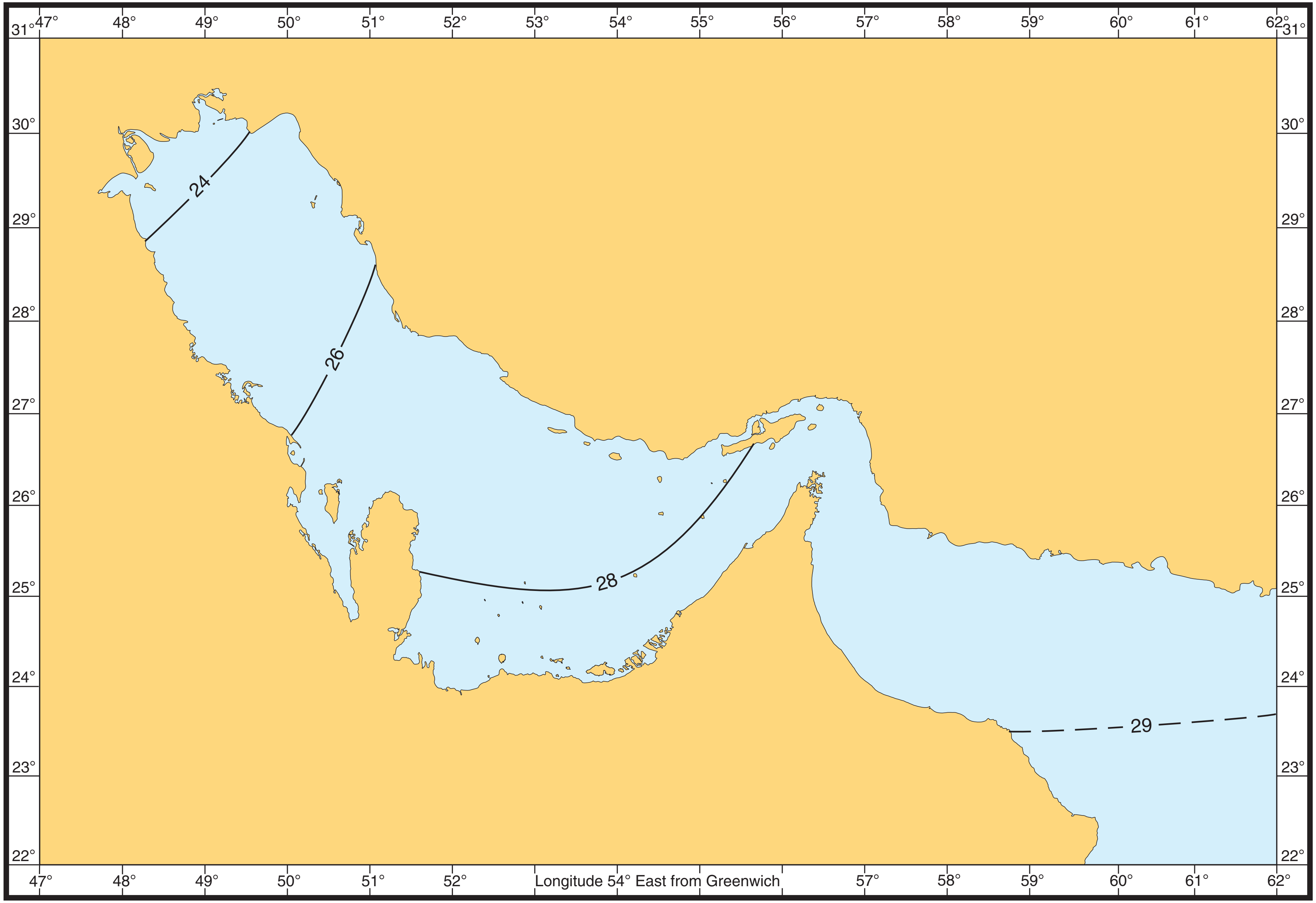
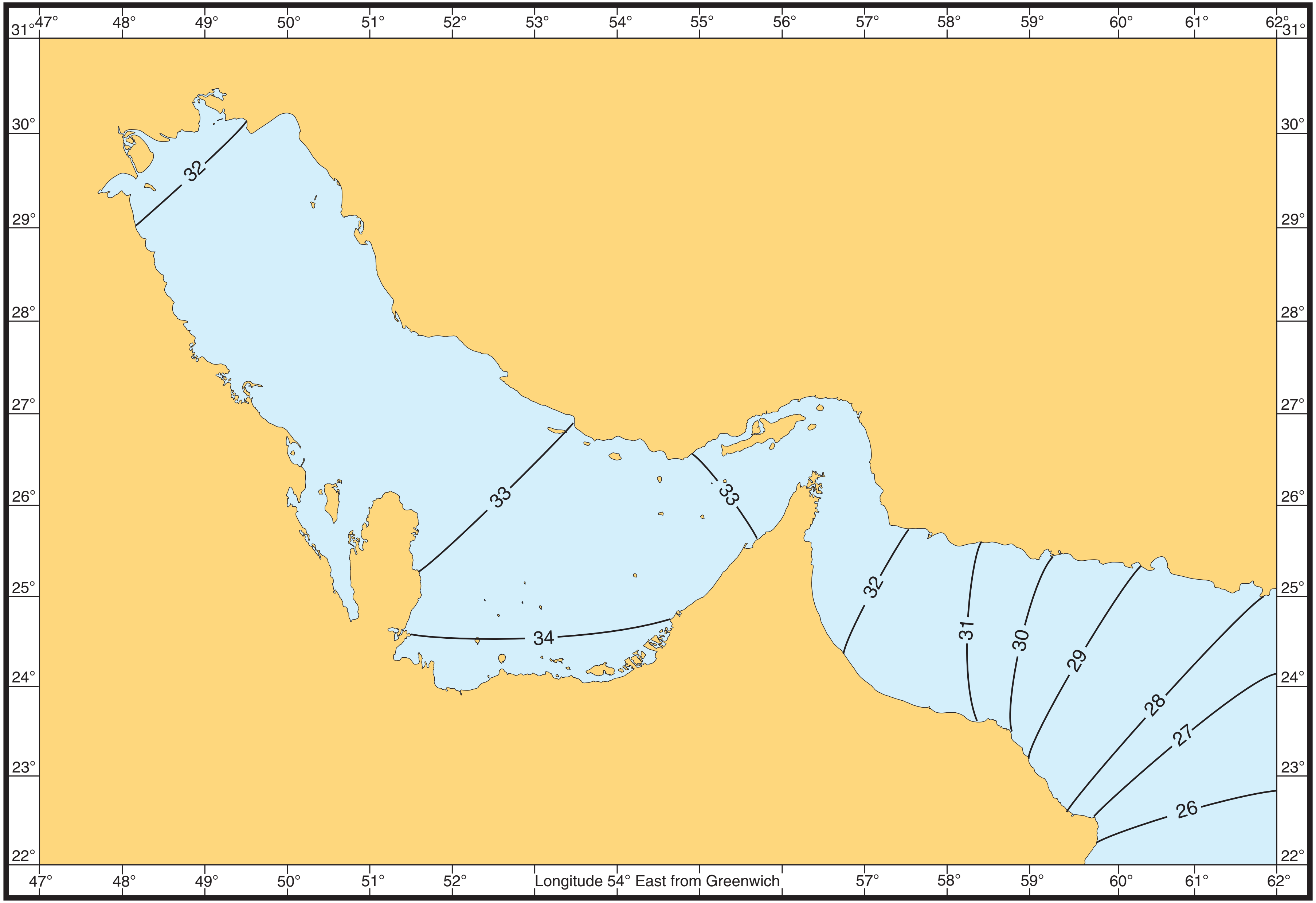


Mean sea surface temperature (°C) MAY (1.125.2)



Mean sea surface temperature (°C) AUGUST (1.125.3)

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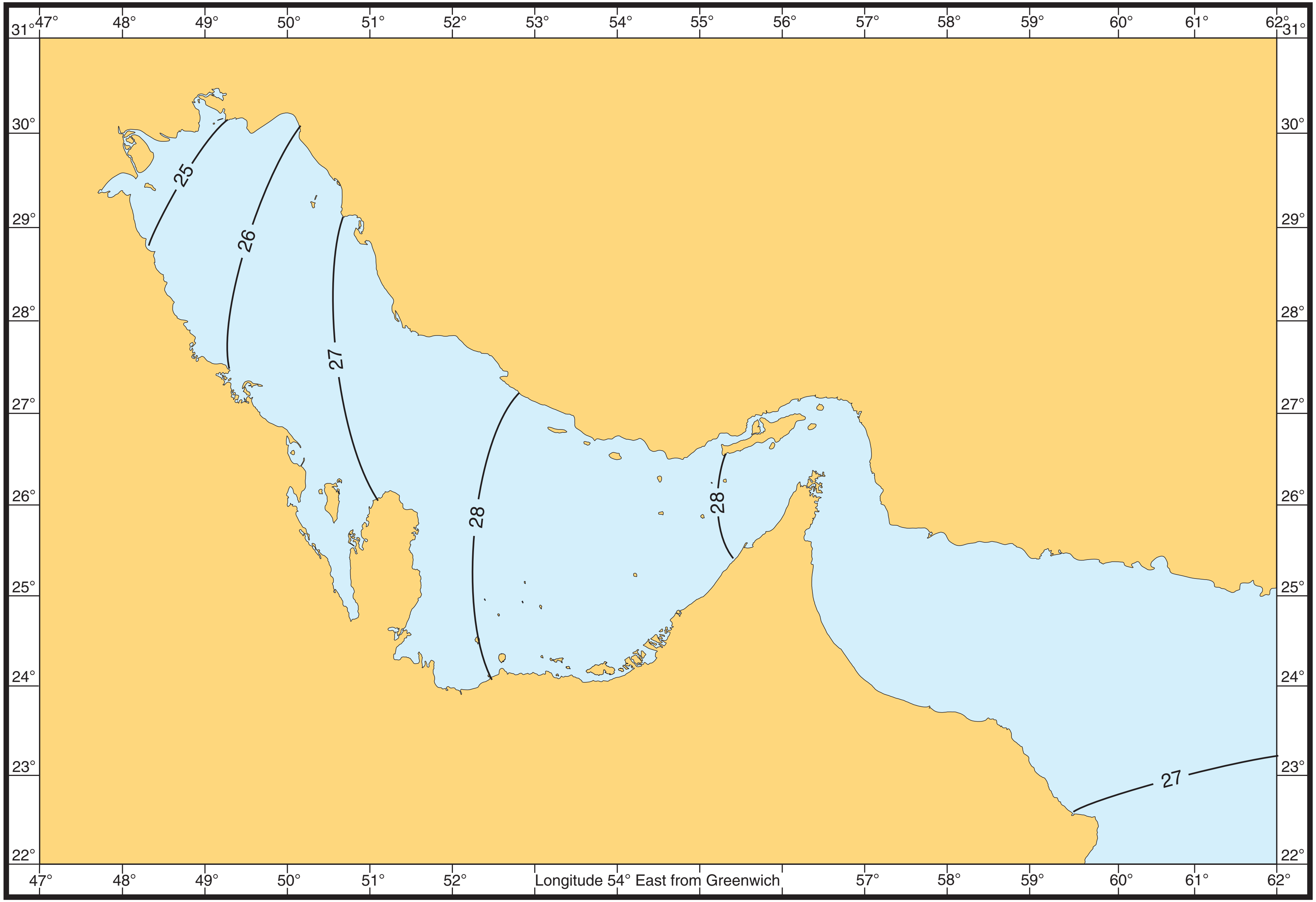

Mean sea surface temperature (°C) NOVEMBER (1.125.4)

2 Winds between W and N dominate Persian Gulf for most of the year and Gulf of Oman in winter. NNE winds predominate farther W over the Arabian Sea in winter. In summer SW monsoon winds affect the area E of Gulf of Oman. Winds are generally moderate in winter and light to moderate in summer over Persian Gulf but significantly stronger over the Arabian Sea in summer. Winds of force 7 or more are recorded on less than 4% of occasions over Persian Gulf and Gulf of Oman in winter, and on less than 2% in summer over Persian Gulf but on around 7 to 12% of occasions in the extreme SE of the area.

3 Rain is rare between June and September, apart from some monsoon rains in summer over the E parts of the Makrān coast. Moderate falls occur at times between November and April although the number of rain–days is small compared with more temperate climates.

Fog is rare although dust storms may reduce the visibility to below 1 km at times in some coastal areas. Visibilities below 5 miles are recorded on less than 5% of occasions in winter and on around 17 to 25% of occasions in summer.

Pressure

Average distribution

1.129

1 The average pressure distribution at mean sea level in January, April, July and October is shown in the accompanying diagrams 1.129.1 to 1.129.4. The pressure pattern is dominated by the Siberian anticyclone in winter and low pressure, centred over NW India/Pakistan, in summer, and with a trough extending W across Iran to Persian Gulf. In general the mean surface barometric pressure is between 1017 and 1020 hPa (mb) in winter and 997 and 999 hPa in summer.

Variability

1.130

1 At times there can be large variations from the mean monthly average pressure. This may be due to an intensification or displacement of the Siberian anticyclone in winter and the position and intensity of the Asian Low in summer. Whilst they may cause large variations from the mean they tend to be short lived with maximum pressures of around 1030 hPa in winter and minimum pressures of around 990 hPa in summer.

2 The Asian anticyclone declines in spring but with the greatest pressure falls in May and June and similarly, as the Asian anticyclone starts to recover, the greatest rises occur in September and October. Despite the considerable annual pressure changes, the mean pressure gradient over the area is relatively small, although relatively small local fluctuations in pressure can result in significant changes in both wind direction and strength. On the rare occasions when a tropical storm or cyclone moves towards Gulf of Oman then greater variations from the mean can be expected.

Diurnal variation

1.131

1 There is a regular diurnal variation from 2 to 3 hPa (mb) with maxima at 1000 and 2200, and minima at 0400 and 1600. In winter, there is a tendency for the 2200 maxima and the 0400 minima to be smaller than at the other maxima and minima times. The largest diurnal variation usually occurs between mid–morning and late afternoon.

Depressions

Extra–tropical depressions

1.132

1 Extra–tropical depressions sometimes move E across the area from the E Mediterranean or N Arabia between late October and May but are most likely in mid–winter. The number of these depressions average around 30 per year and are generally shallow but they can give rise to strong winds or, on some occasions, gale force winds. As the depressions move E towards Gulf of Oman and S Pakistan they tend to steadily fill but, on occasions, may still give rise to gale force winds and squally conditions over the extreme N part of the Arabian Sea.

Tropical cyclones

1.133

1 On average 4 to 6 tropical depressions may affect the Arabian Sea each year, of which 1 or 2 may intensify in a tropical storm or cyclone (force 12). They are most likely to form in May and June or October and November, although occasionally a tropical depression may form during a lull in the SW monsoon in summer or slightly more frequently in early winter. Most tropical depressions form over the SE part of the Arabian Sea or, mainly in October and November, originate in the Bay of Bengal and move W or NW across S India into the Arabian Sea. Once formed most depressions either move WNW towards Arabia or recurve N or NE to cross the coast of Pakistan or NW India. On rare occasions a tropical storm has moved into the approaches to Gulf of Oman but none have ever reached Persian Gulf. However, it should be remembered that the track of any individual tropical cyclone can be very erratic. Some may move S at times to complete a series of loops.

2 For a full description of tropical storms and cyclones, and the appropriate avoiding action, see *The Mariner's Handbook*.

Fronts

1.134

1 The extra–tropical depressions affecting the area between late October and May have associated frontal systems but the warm fronts are usually weak and ill–defined; see *The Mariner's Handbook* for a full description of warm and cold fronts. Similarly, some cold fronts may result in only a change in wind direction and a change to somewhat drier air, whilst other cold fronts may exhibit a more classical form with increased cloud, outbreaks of rain and a sharp wind veer. The usual drop in temperature, on the passage of a cold front, can on occasions be masked by diurnal heating over land but a temperature decrease is often experienced over the more open waters. Squalls are likely to occur during the passage of a cold front which in turn may result in a decrease in visibility due to dust and sand storms.

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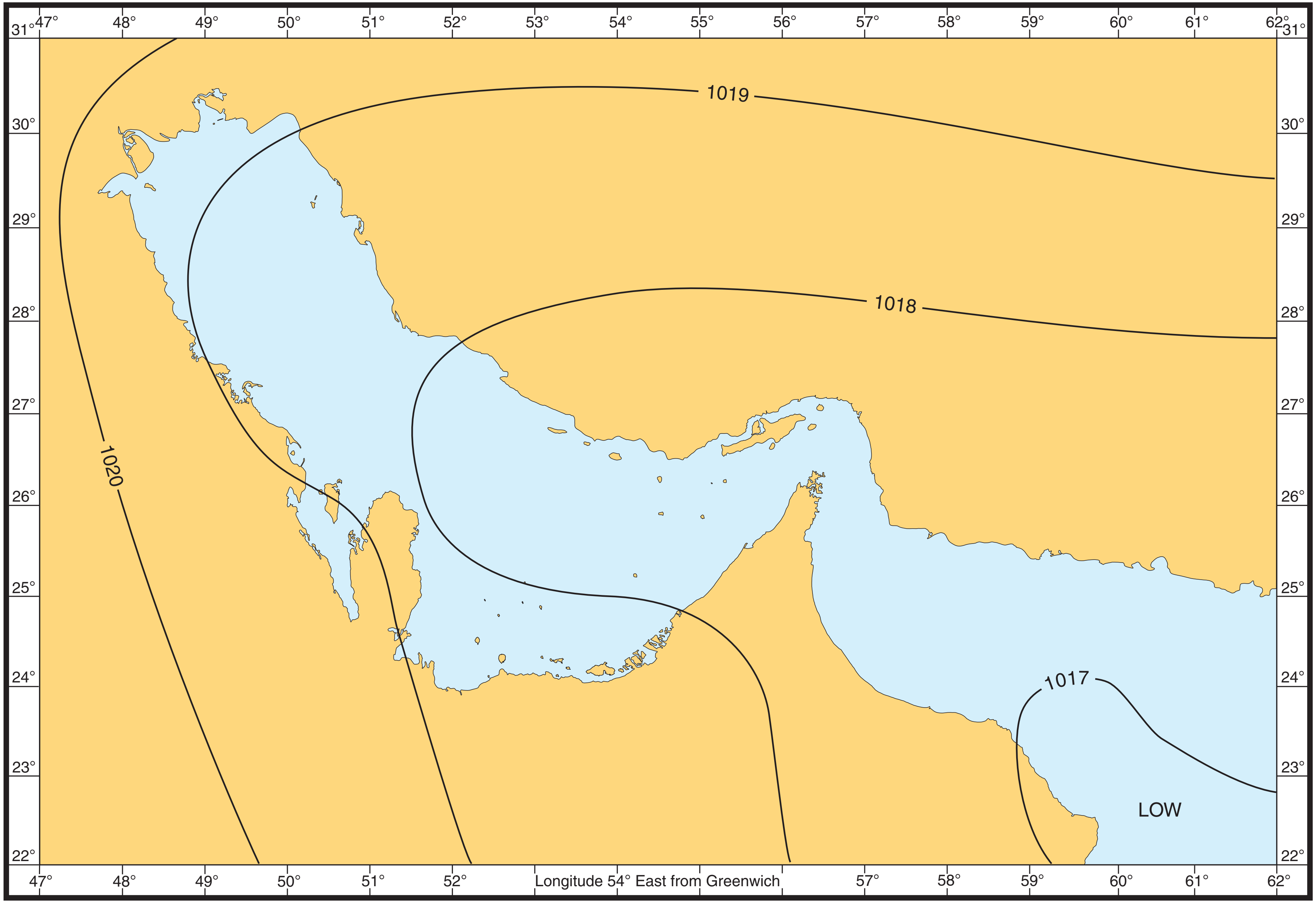

Mean barometric pressure (hPa) JANUARY (1.129.1)

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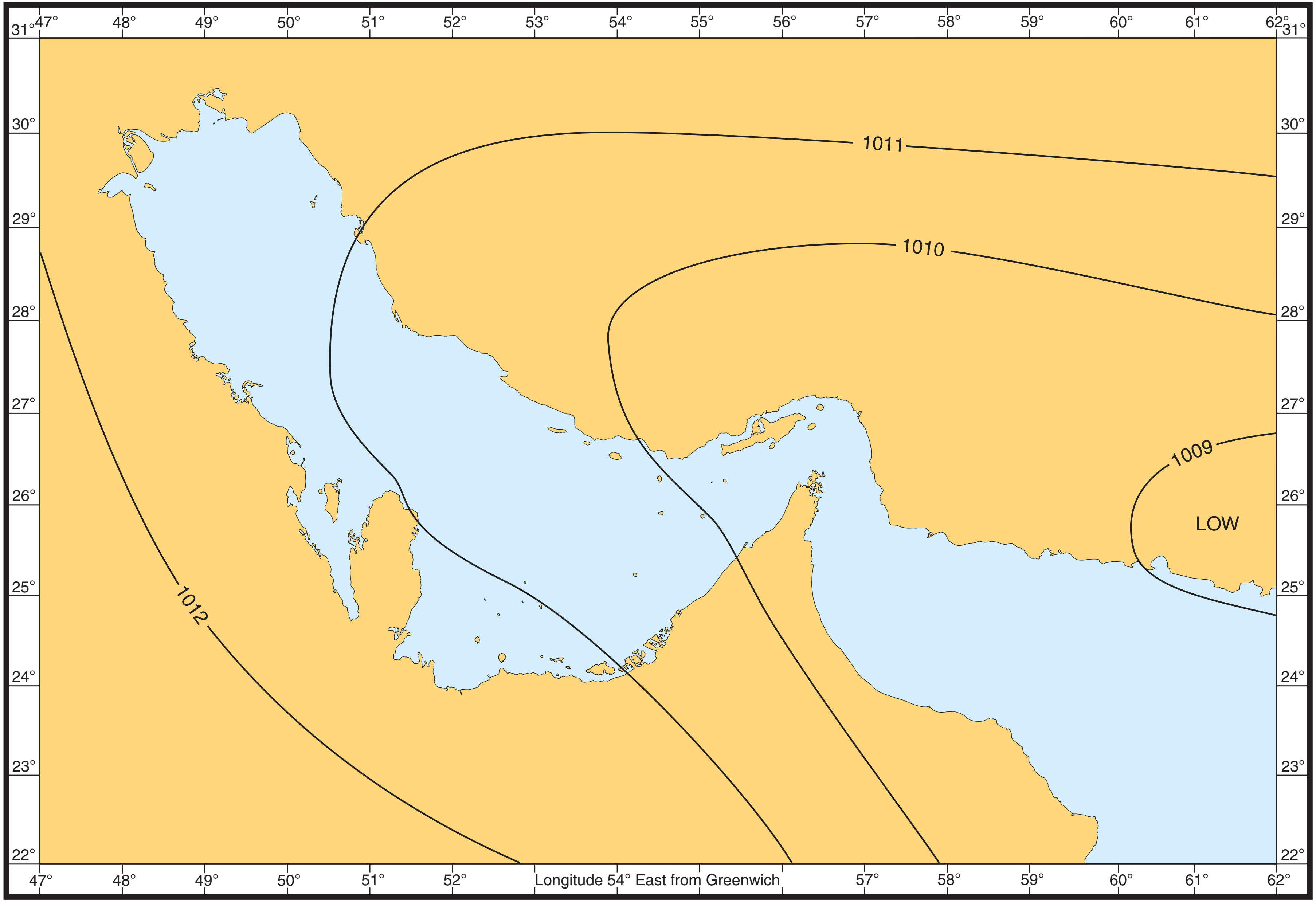

Mean barometric pressure (hPa) APRIL (1.129.2)

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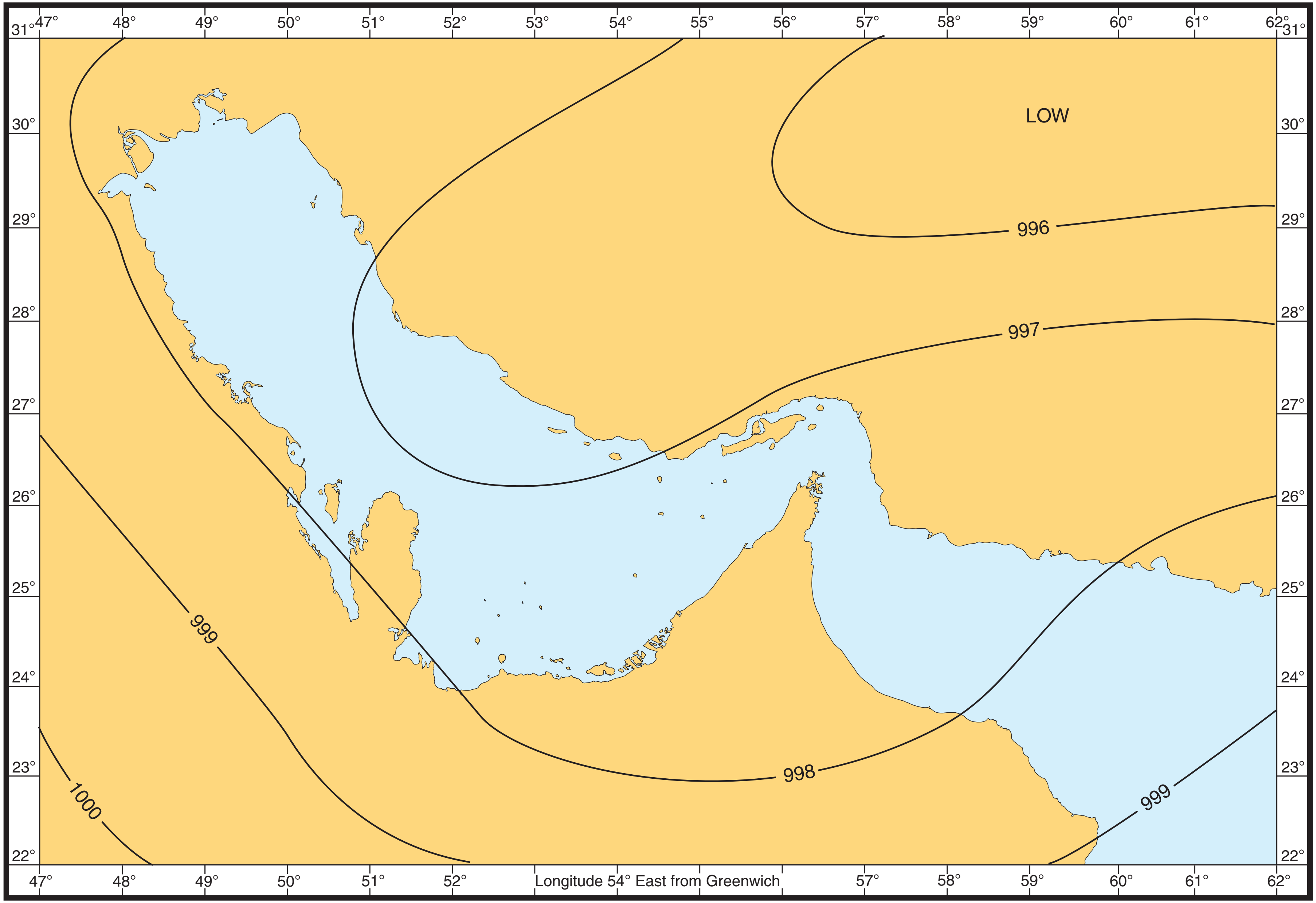

Mean barometric pressure (hPa) JULY (1.129.3)

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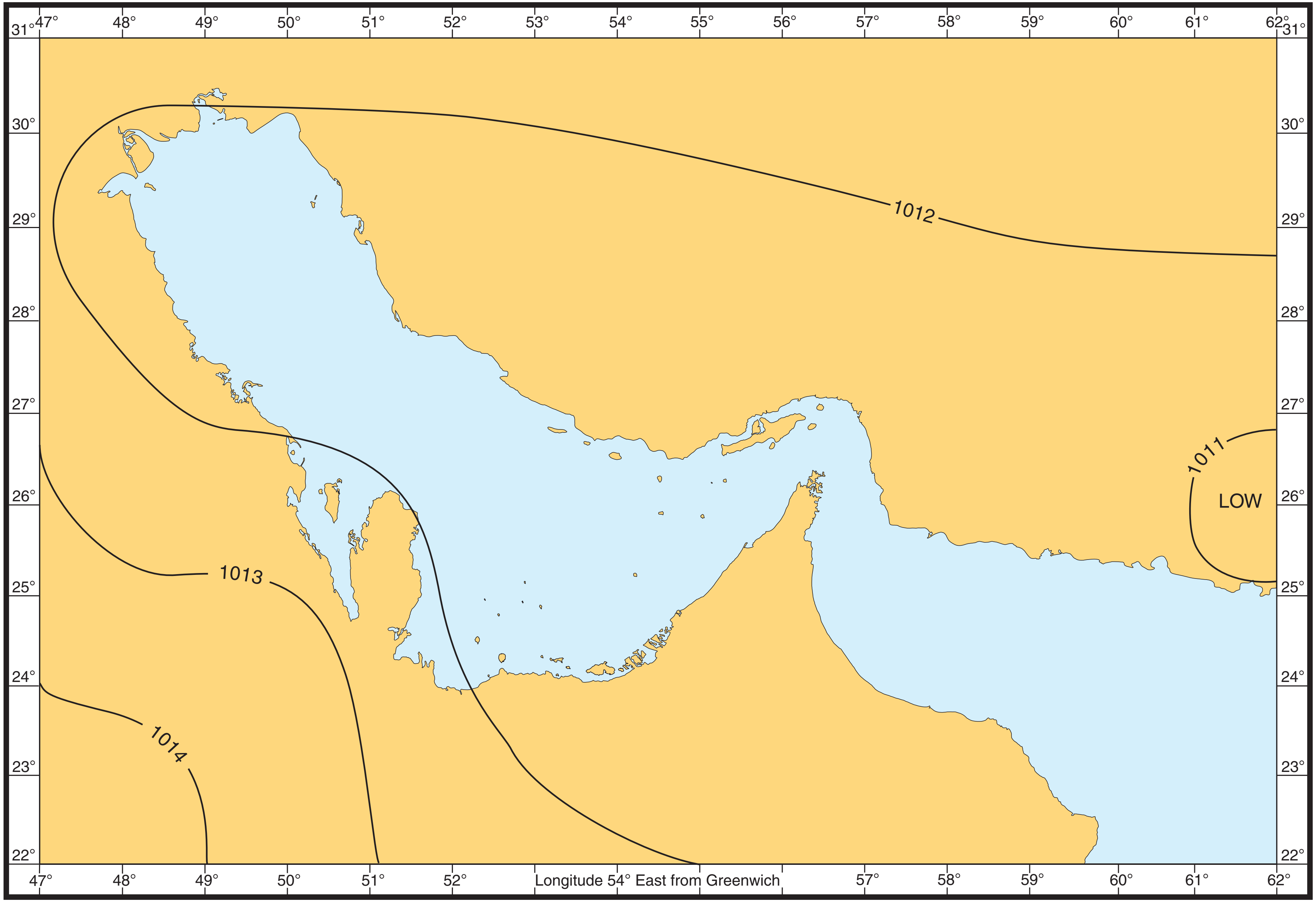

Mean barometric pressure (hPa) OCTOBER (1.129.4)

Winds

Average distribution

1.135

1 Wind roses showing the frequency of wind distribution for the area in January, April, July and October are given in diagrams 1.135.1 to 1.135.4.

Open sea

1.136

1 Throughout the winter the winds are predominantly from NW over much of Persian Gulf and over Gulf of Oman, but more W towards the Strait of Hormuz, and more NE in the extreme NE of the area.

Whenever E–moving depressions affect the area, SE winds frequently affect the area ahead of the depressions then return NW as the depressions pass. January is usually the most boisterous month with 3 to 4% of winds reaching force 7 of more.

2 During spring the number of depressions affecting the area decreases and in April the frequency of strong winds in the NW Persian Gulf is significantly lower. In the E of the area the frequency of strong winds does not change a great deal but their direction being predominantly from between S and NW. In summer the frequency of strong winds over Persian Gulf falls to a minimum whilst over Gulf of Oman the frequency of strong winds reaches a maximum with 7 to 12% of the winds reaching force 7 or more, and with S to SW winds predominating in this area. The increase in the frequency of strong winds, over Gulf of Oman, being the result of the strong SW monsoon winds affecting the Arabian Sea during this period.

3 October is regarded as the month of transition and November marks the beginning of the return to the winter season, and with depressions again starting to move E across the N Persian Gulf. The ending of the SW monsoon during September gives rise to lighter and more variable winds, over Gulf of Oman in October and before the return of the predominantly NW to NE winds in November.

Coastal areas and local names of winds

1.137

1 The main factors which modify the direction and speed of the wind along coasts are described in *The Mariner's Handbook*. The persistent NW winds over Persian Gulf have acquired the local name of *shamāl*, indicating that the wind is of N origin rather than blowing from any particular direction. Some authorities confine the term to occasions when the winds are force 5 and above.

2 The *shamāl* is most frequent in the N Persian Gulf and is much less frequent over Gulf of Oman. The *shamāl* is also more continuous in summer than winter, due largely to the absence of migratory depressions from May onwards. The period between 6 June to 16 July, known as Barihal–Jauzah, or Barih al Kabir, is often referred to as the time of the great, or 40–day, *shamāl* because of the persistence of the NW winds at this time. Gradual increases and decreases in the strength of the *shamāl* can be traced to pressure fluctuations over the area. The onset of a strong winter *shamāl* can be very sudden and is usually associated with the pressure trough at a cold front; winds can veer from a moderate SE to a strong, or even gale force, squally NW wind in a matter of minutes. Little preliminary warning may be observed from the pressure tendency but with a sharp rise of pressure accompanying the passage of the cold front. One indicator, although not infallible, of the onset of a strong *shamāl* in the S of Persian Gulf is the onset of a NW swell. Squalls may or may not accompany the passage of a cold front and, whether squally or not, may give little indication as to whether further squalls are likely. Other possible indicators are a drop in humidity or a fall in pressure a day or two before the arrival of a depression.

3 In contrast to the squally character of the winter *shamāl*, those of summer are usually accompanied by dry air and cloudless skies. Dust haze and blowing sand is sometimes a feature of the summer *shamāl*.

Other local winds are:

Suhaili	Arabic name for a SW wind.
Kaus or *Sharki*	Arabic and Persian, respectively, names for SE winds: they are sometimes used in reference to E winds.
Nashi	Arabic name for NE winds: they occur in winter along the Iranian coast of Persian Gulf and on the Makrān coast: they are most likely to be encountered in the region of Strait of Hormuz.

Land and sea breezes

1.138

1 The development of land breezes by night, and sea breezes by day, is a strong feature over the whole area, as shown in the Climatic Tables (1.145). The strength of the land breeze varies greatly due to the differences in adjacent topography but the sea breeze usually strengthens to force 3 to 4 in the afternoons and occasionally to force 5 in some places. The winds frequently start at right angles to the coast then parallel the coastline during the afternoon. Night time or early morning Katabatic winds may, at times, affect limited areas along the more mountainous coast line of Iran and Oman; see *The Mariner's Handbook* for a full description of Katabatic winds.

Cloud

1.139

1 Over the open water, in winter, cloud amounts average around 3 to 4 oktas over the NW part of the Persian Gulf, around 3 oktas over the E part of the Persian Gulf and 2 oktas over Gulf of Oman. In summer the figures are 1 okta, 2 oktas and 3 to 4 oktas respectively. Prolonged periods of clear skies, over the Persian Gulf, are common between May and October and with the cloudiest period being December to March.

2 Diurnal variation in cloud amounts is small over the region except for the Iranian Makrān coast in summer where there is a marked decrease in cloud during the day, and to a lesser extent on the N coast of Oman. See the Climatic Tables (1.145) for the mean cloud amounts at a number of coastal stations within the area.

Precipitation

General

1.140

1 The desert character of much of the coastline indicates the general lack of rain over the area, particularly on S coasts. Most of the coastal areas have a mean annual rainfall of between 50 and 250 mm but the annual amount varies greatly from year to year. Rainfall is almost entirely restricted to the winter months and with little if any rainfall recorded between June and September. Further E along the Makrān coast, but outside the limits of this Pilot, there is a change in the seasonal rainfall distribution with a marked summer maximum accompanying the SW monsoon and with relatively dry winter months.

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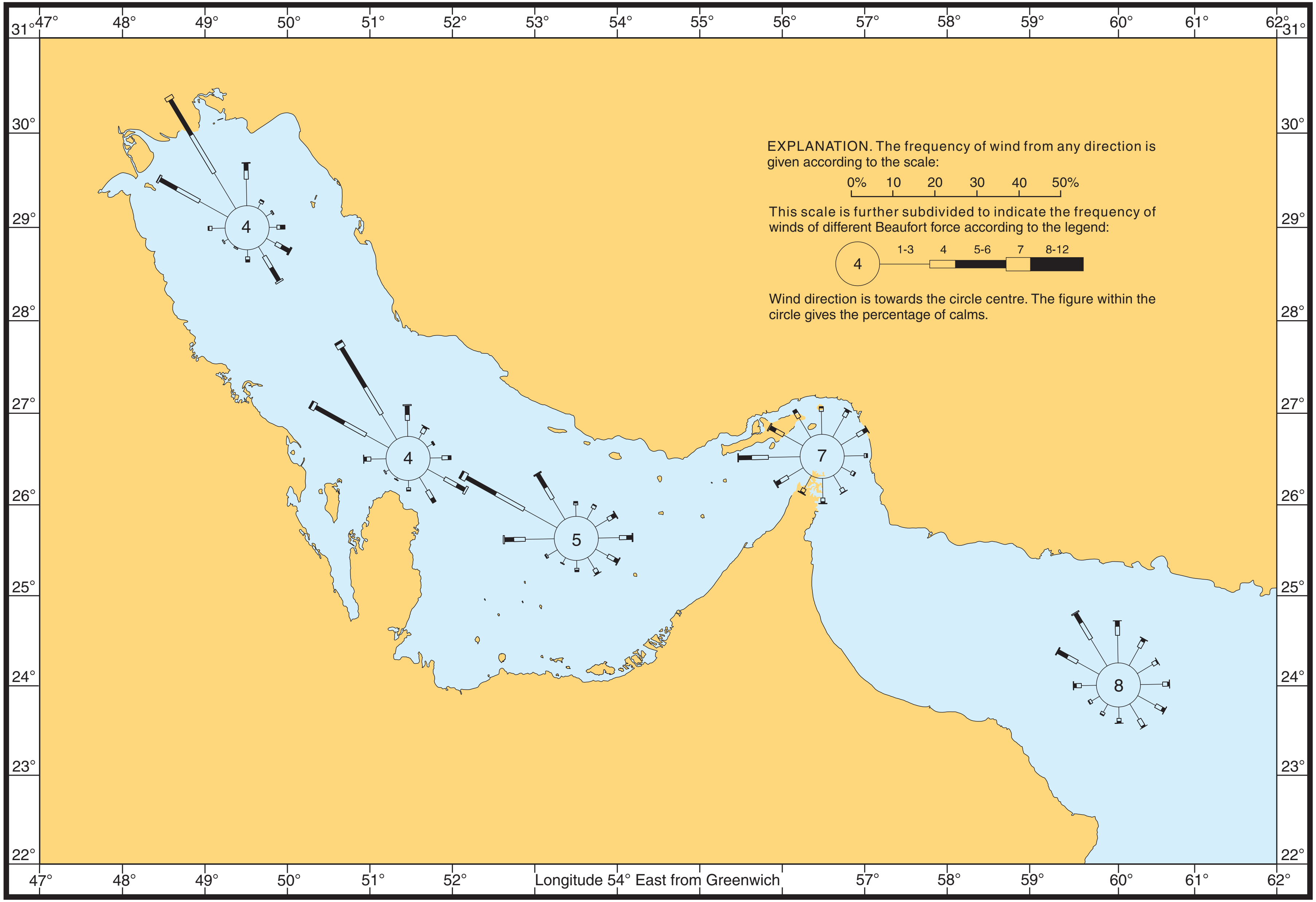
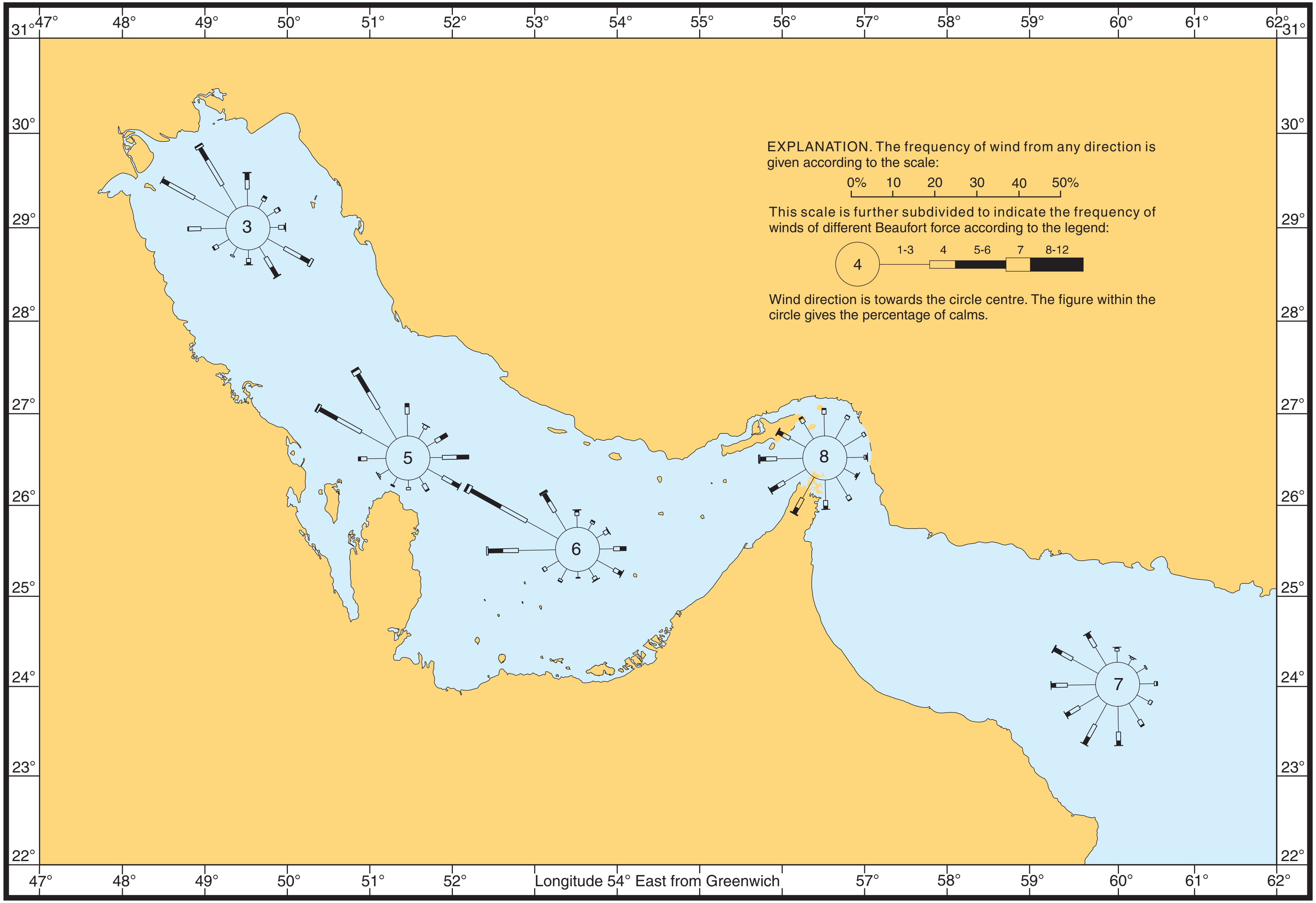


EXPLANATION. The frequency of wind from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of winds of different Beaufort force according to the legend:

Wind direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Wind Distribution - JANUARY (1.135.1)

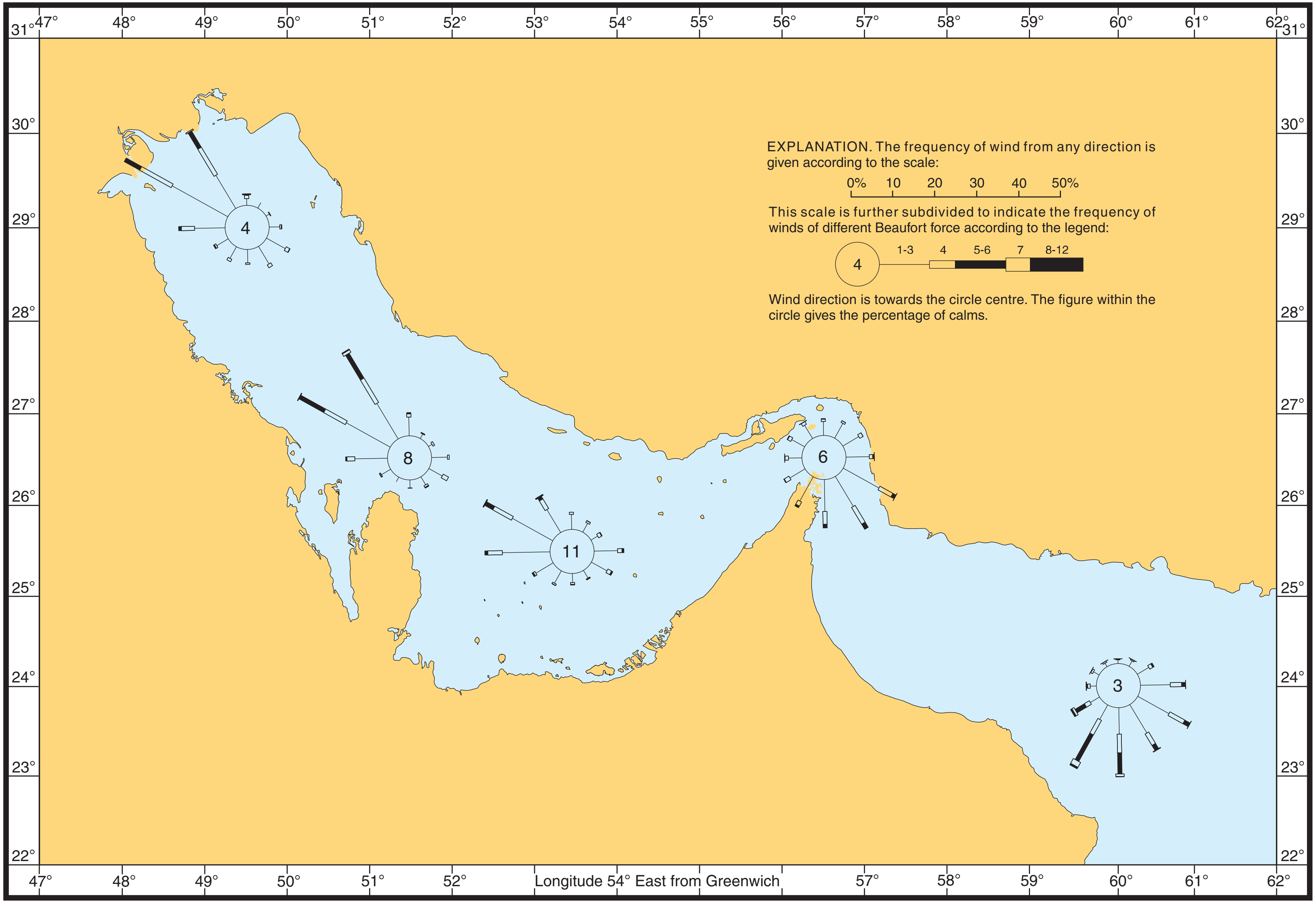


EXPLANATION. The frequency of wind from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of winds of different Beaufort force according to the legend:

Wind direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Wind Distribution - APRIL (1.135.2)



EXPLANATION. The frequency of wind from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of winds of different Beaufort force according to the legend:

Wind direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Wind Distribution - JULY (1.135.3)

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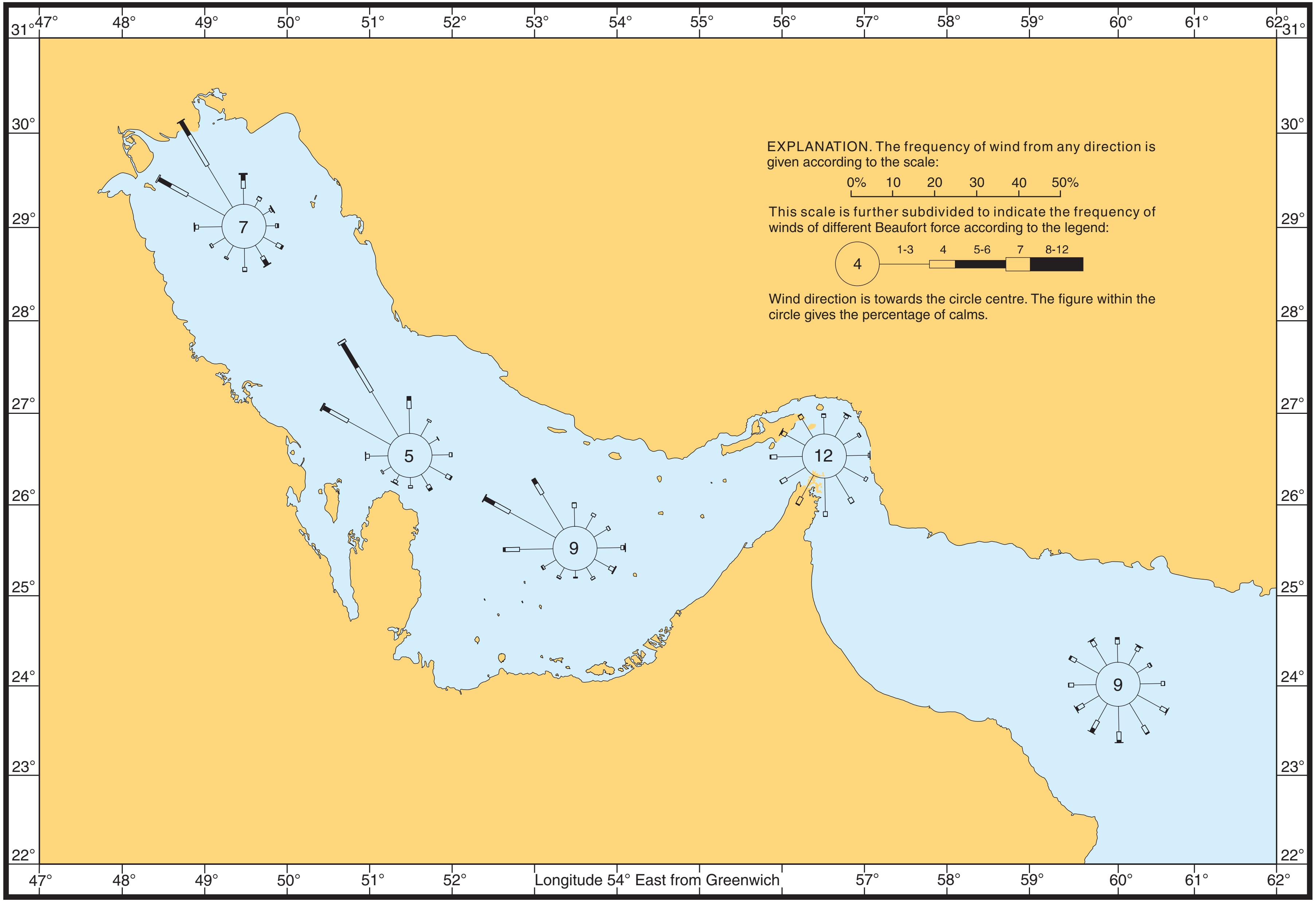

EXPLANATION. The frequency of wind from any direction is given according to the scale:

This scale is further subdivided to indicate the frequency of winds of different Beaufort force according to the legend:

Wind direction is towards the circle centre. The figure within the circle gives the percentage of calms.

Wind Distribution - OCTOBER (1.135.4)

2 On rare occasions when a tropical storm may approach the E part of the area there is a risk of heavy rainfall. One such occasion occurred in June 1890 at Muscat when 300 mm was recorded in one 24 hour period of continuous rain.

Thunderstorms and hail

1.141

1 Thunderstorms are relatively infrequent. The average annual frequency is highest in the NW part of the Persian Gulf with around 6 to 12 days with thunder and with between 4 and 8 days with thunder in E part of the Persian Gulf. Over Gulf of Oman the average number of days with thunder is between nil and 4 days.

Hail is occasionally reported and, on rare occasions, hailstones of 100 to 125 mm in diameter have been reported in April.

Fog and visibility

1.142

1 Fog is rare over the sea areas but is occasionally reported in coastal areas. It is usually very local and short lived, normally only lasting an hour or so in the early morning around sunrise. See *The Mariner's Handbook* for a full description for the different types of fog and the Climatic Tables (1.145) for the fog frequency at a number of stations within the area.

2 Visibility, particularly in winter, is good or very good at sea. But haze due to raised dust can reduce the visibility to less than 8 km, particularly in coastal areas. The frequency of haze, over the more open waters of the Persian Gulf, is less than 5% in winter but increases to around 17 to 25% in summer, and over Gulf of Oman from around 1 to 3% to 11% in summer. July is usually the month when dust haze is most frequent in coastal areas. The dust is raised by a combination of intense local heating and NW winds. Vortices of hot air frequently give rise to multiple dust storms (dust devils or dust whirls) which may then drift out over coastal waters for a time to reduce the visibility to below fog limits (1000 m or less). These vortices can be very gusty and may result in waterspouts in coastal waters. The dust particles are usually extremely fine and can be carried for considerable distances across the Persian Gulf and Gulf of Oman and reduce the visibility to around 4 to 8 km.

3 Mirages and abnormal refraction may be encountered at times over the sea areas; see *The Mariner's Handbook* for a full description and effects of mirages and abnormal refraction.

Air temperature

1.143

1 Over open water, the mean air temperature in January is 17°C in the NW part of the area, 21°C in the E part of the Persian Gulf and 22° to 23°C over Gulf of Oman. In July the figures for these areas are respectively 33°C, 30°C and 32° to 33°C. Off Ra's al Ḩadd the mean temperature falls to around 27°C due to the air being cooled by cold water upwelling resulting from the strong SW monsoon winds over the Arabian Sea, and usually persists from July to September.

2 At coastal stations in the NW part of the area the average daily maximum temperature is 46° to 47°C in summer and 16° to 18°C in winter. In the E part of the Persian Gulf the average daily maximum is 36° to 43°C (the highest figure relating to S coasts) in summer and 23° to 24°C in winter. In coastal areas of Gulf of Oman the average daily maximum is 25° to 26°C in winter and 35° to 39° in June but decreases to around 31° to 33°C in August and September (see Climatic Tables 1.145). Extreme summer temperatures of 50°C or more have been recorded at some locations and extreme winter temperatures of 0° to 2°C.

3 The average monthly air temperature over the more open waters is usually within 2°C of the average sea surface temperature although short term variations of 2° to 5°C can occur at times. Larger variations from the mean are possible in some shallow coastal waters and in harbours.

Humidity

1.144

1 Humidity is closely related to air temperature and generally decreases as the temperature increases. During the early morning, when the air temperature is normally at its lowest, the humidity is generally at its highest, and falls to a minimum the afternoon.

2 Contrary to the above, in some coastal areas, the afternoon sea breezes can cause the humidity values to increase rather than decrease and, in mountainous coastal areas, dry cool downdraughts towards the coast in the early morning may actually reduce the humidity values. Hence the moisture content of the air can be as high, or even higher, in the afternoon than the moisture content in the early morning, and so wet bulb temperatures are closely related to comfort/discomfort. Some authorities regard 27°C wet bulb temperatures as the maximum permissible for staff engaged in outside physical effort. In certain areas of Persian Gulf (mostly central and S) the wet bulb temperatures can exceed 30°C for several days at a time in summer.

3 The mean humidity over the more open waters in January is around 71% in the NW part of the area, 67% in the E part of the Persian Gulf and 66% over Gulf of Oman. In July the figures are respectively 68%, 79% and 83%. The high figure over Gulf of Oman in summer is due to the moist SW monsoon winds over the Arabian Sea.

CLIMATIC TABLES

1.145

1 The tables which follow give data for several coastal stations that regularly undertake weather observations. Some of these stations have been re–sited and so the position given is the latest available.

It is emphasised that these data are average conditions and refer to the specific location of the observing station and therefore may not be totally representative of the conditions over the open sea or in approaches to ports in their vicinity.

2 The following comments briefly list some of the differences to be expected between conditions over the open sea and the nearest reporting station; see *The Mariner's Handbook* for further details:

Wind speeds tend to be higher at sea than on land, although funnelling in narrow inlets can result in an increase in wind strength.

Precipitation along hilly wind–facing coasts can be considerably higher than at sea to windward. Similarly precipitation in the lee of high ground is generally less.

Air temperature over the sea is less variable than over the land.

Topography has a marked effect on local conditions.

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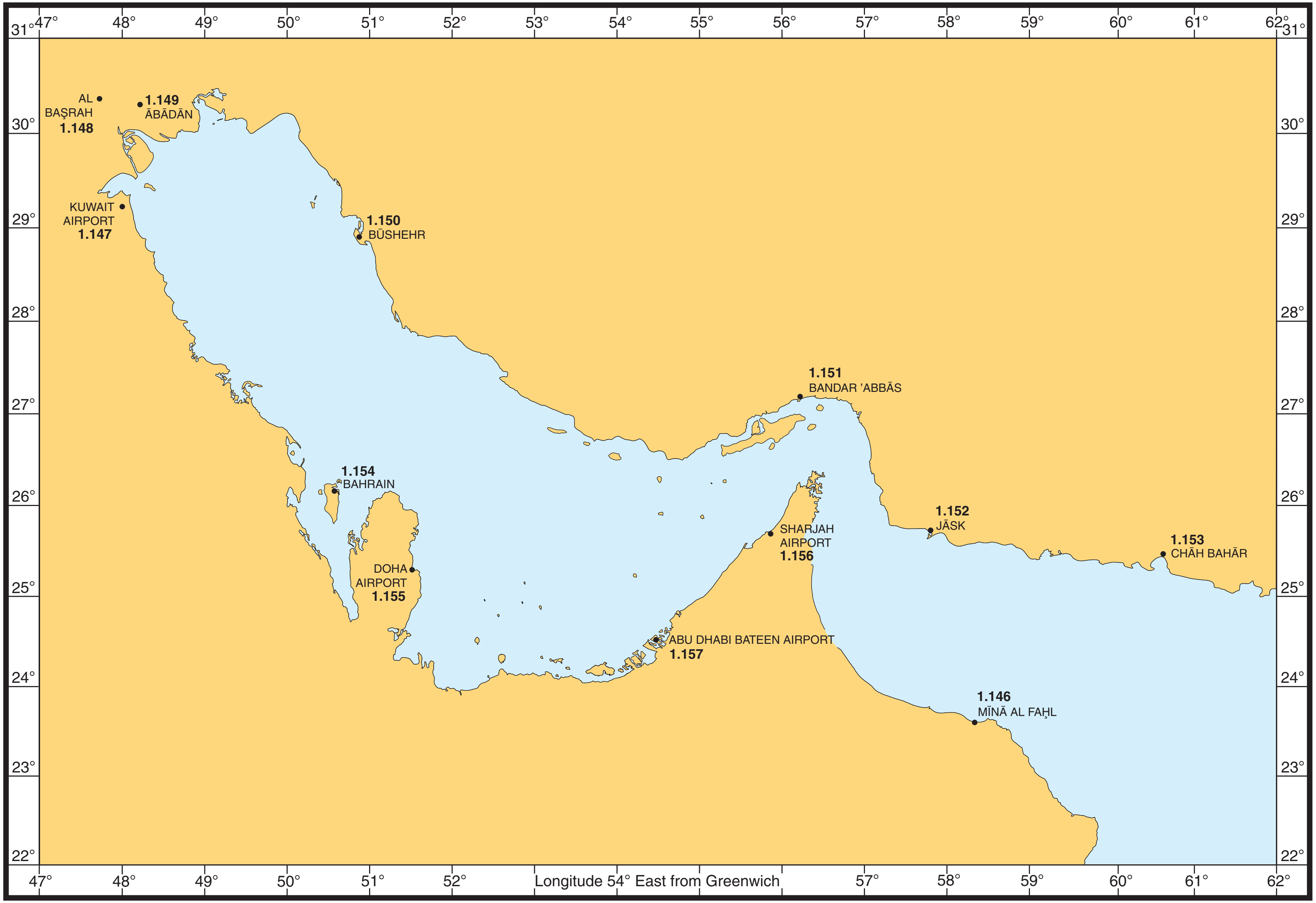

Location of climatic stations (1.145)

1.146

WMO No 41258

MĪNĀ AL FAḨL (23° 37′ N, 58° 34′ E) Height above MSL – 4 m

Climatic Table compiled from 21 to 30 years observations, 1930 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
												1000									1600													
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	1000	1600	1000	1600	Average fall	No. of days with 1 mm or more	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	1000	1600	Gale	Fog	Thunder
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1018	25	20	38	16	64	64	2	2	27	4	8	4	9	8	4	8	26	9	22	21	10	29	9	3	⊕	9	16	3	5	7	0	0	⊕
February	1016	26	21	31	18	65	63	2	2	16	2	10	9	13	8	2	5	25	17	12	20	11	25	10	3	1	5	22	5	6	8	0	0	0
March	1013	29	23	41	19	61	62	2	2	11	2	15	9	13	3	1	4	18	24	13	14	13	29	6	0	1	7	21	9	6	7	0	0	⊕
April	1010	33	26	39	22	55	52	2	2	9	1	10	10	18	2	1	4	20	24	10	8	10	26	8	3	2	10	19	15	7	6	0	0	⊕
May	1005	36	30	42	25	56	52	1	1	<1	⊕	11	11	16	2	1	1	16	20	20	6	7	42	2	0	0	6	13	23	5	5	0	0	0
June	999	39	31	46	26	67	62	1	1	2	⊕	13	11	27	1	0	2	16	14	17	13	11	38	5	1	1	3	10	19	6	5	0	0	0
July	998	35	30	43	25	68	66	2	1	1	⊕	10	17	29	3	1	0	8	9	22	4	21	46	6	0	⊕	5	2	15	5	7	0	⊕	0
August	1001	31	28	36	26	77	76	2	1	<1	⊕	10	24	38	3	3	1	6	4	14	1	12	70	8	1	0	0	1	8	6	8	0	0	0
September	1006	33	28	40	26	70	72	1	1	<1	⊕	17	18	28	2	⊕	⊕	9	15	10	10	15	54	6	0	1	4	4	7	6	7	0	0	0
October	1012	33	27	36	24	61	63	⊕	⊕	2	⊕	18	11	17	4	1	2	12	26	9	15	15	27	10	1	1	5	16	11	5	6	0	0	0
November	1016	29	24	31	20	62	63	1	1	9	1	19	10	15	5	3	4	11	21	12	14	15	30	12	3	⊕	5	13	7	4	6	0	0	0
December	1018	26	21	33	17	63	64	2	2	21	3	11	8	14	7	4	10	19	8	19	19	15	31	10	1	1	2	17	3	5	7	0	0	0
Means	1009	31	25	50 *	15 §	64	63	1	1	–	–	13	12	19	4	2	4	15	16	15	12	13	37	8	1	1	5	13	10	5	7	–	–	–
Totals	–	–	–	–	–	–	–	–	–	98	13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	0	⊕	⊕
Extreme values	–	–	–	60†	9‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	21	21				21		21		30		21									21									21		21	21	21

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.147

WMO No 40582

KUWAIT AIRPORT (29° 13′ N, 47° 59′ E) Height above MSL – 55 m

Climatic Table compiled from 30 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0900	1500	0900	1500	Average fall	No. of days with mm or more	0900									1500									0900	1500	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1021	18	7	24	2	70	43	3	3	26		4	2	2	10	11	3	18	27	24	16	4	11	11	3	2	5	42	6	7	10	⊕	1	1
February	1019	21	9	29	3	59	34	3	3	16		5	3	4	11	9	3	14	29	23	15	4	17	12	2	1	6	40	4	7	11	⊕	1	1
March	1016	26	13	32	7	47	29	3	3	13		10	5	6	10	10	4	12	25	18	18	6	24	11	1	2	5	30	1	8	12	⊕	⊕	2
April	1012	33	19	40	12	33	22	3	3	15		18	6	7	9	12	5	9	22	12	19	9	31	11	1	2	2	23	2	9	12	⊕	0	2
May	1008	40	25	46	19	21	16	2	2	4		24	7	6	5	6	4	8	31	8	21	11	34	5	⊕	⊕	3	25	1	10	12	⊕	⊕	1
June	1002	44	28	48	22	14	14	<1	<1	0		15	3	1	1	2	3	7	62	5	19	6	15	1	⊕	1	2	54	1	12	15	⊕	0	⊕
July	999	46	29	49	25	14	23	<1	<1	0		11	2	1	1	1	2	13	65	4	14	6	15	1	⊕	⊕	4	59	1	11	15	⊕	0	0
August	1001	46	29	49	25	18	33	<1	<1	0		8	1	1	2	2	3	12	61	10	17	6	19	1	1	⊕	3	52	⊕	10	14	⊕	0	0
September	1007	42	25	47	21	22	19	<1	<1	0		10	1	1	3	5	4	14	46	17	23	9	26	2	1	1	1	37	1	8	12	⊕	⊕	0
October	1014	36	20	42	15	34	24	2	2	3		14	3	3	5	10	5	14	27	20	22	11	31	4	1	1	3	25	2	7	11	0	1	1
November	1019	27	14	34	6	51	33	3	3	14		10	3	3	6	10	4	12	32	20	20	6	20	8	2	⊕	4	35	4	7	10	⊕	1	2
December	1021	20	9	27	3	67	43	3	3	17		7	2	2	10	9	3	19	25	23	18	4	13	11	3	1	3	40	6	7	10	⊕	1	1
Means	1012	33	19	50*	1§	38	31	2	2	–	–	11	3	3	6	7	4	13	38	15	19	7	21	7	1	1	3	39	2	9	12	–	–	–
Totals	–	–	–	–	–	–	–	–	–	108	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	5	11
Extreme values	–	–	–	55†	–2‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	30	30				30		30		30		30									30									30		30	30	30

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.148

WMO No 40689 **AL BAŞRAH** (30° 34′ N, 47° 47′ E) Height above MSL – 2 m

Climatic Table compiled from 17 to 30 years observations, 1960 to 1990

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																			Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0900	1500	0900	1500	Average fall	No. of days with 1 mm or more	0900									1500									0900	1500	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1020	16	5	23	–1	81	55	3	4	66	6	8	2	13	7	5	4	24	24	14	17	6	4	10	11	2	13	32	6	6	8	⊕	1	1
February	1017	19	7	26	2	73	47	3	3	34	4	7	5	10	5	10	9	31	16	7	20	6	8	12	7	4	13	28	3	6	9	0	⊕	1
March	1015	25	14	31	8	61	38	3	4	20	3	12	4	9	11	12	6	19	20	7	20	5	4	14	9	3	6	35	4	7	10	⊕	⊕	1
April	1011	33	20	39	12	46	31	3	3	9	2	18	7	4	11	15	4	11	21	11	27	6	5	10	11	1	6	30	3	7	10	⊕	⊕	2
May	1007	40	25	47	20	38	27	2	2	2	0	24	9	7	3	5	4	14	26	7	29	2	3	8	4	1	7	44	2	6	10	⊕	0	2
June	1001	44	26	47	23	34	29	<1	<1	0	0	19	2	1	1	2	1	19	52	5	12	1	1	3	2	1	7	72	2	10	13	⊕	⊕	⊕
July	997	47	29	50	22	33	31	<1	<1	0	0	8	1	1	⊕	2	2	21	58	8	11	1	1	2	1	0	8	73	3	9	12	0	⊕	0
August	999	46	28	46	26	38	30	<1	<1	0	0	7	⊕	3	2	3	⊕	17	65	4	8	1	2	⊕	0	0	3	82	3	8	11	0	0	0
September	1005	42	24	47	18	39	25	<1	<1	0	0	12	6	4	2	5	3	23	37	8	19	2	3	3	3	1	3	61	7	5	9	0	⊕	⊕
October	1012	37	20	42	13	50	31	2	2	8	1	12	3	8	5	9	5	16	26	15	19	3	4	11	7	1	7	41	8	5	8	0	⊕	1
November	1017	27	15	31	8	64	39	2	3	27	3	13	3	4	5	5	2	22	34	13	17	5	3	10	7	1	10	42	5	5	8	0	1	⊕
December	1019	19	8	21	3	81	54	4	4	62	5	7	3	10	8	7	4	30	20	11	16	8	7	11	8	3	10	31	7	6	7	⊕	2	2
Means	1009	33	18	50 *	–1 §	52	38	2	2			12	4	6	5	7	3	20	34	9	18	4	4	8	6	1	7	48	4	7	10	–	–	–
Totals	–	–	–	–	–	–	–	–	–	228	24	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	6	11
Extreme values	–	–	–	50†	–1‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	17	17				17		17		30		17									17									17		17	17	17

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.149

WMO No 40831

ĀBĀDĀN (30° 22′ N, 48° 15′ E) Height above MSL – 6 m

Climatic Table compiled from 30 to 31 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0930	1530	0930	1530	Average fall	No. of days with 1 mm or more	0930									1530									0930	1530	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1020	18	9	23	4	80	51	3	4	35	5	3	1	6	5	2	1	12	18	52	11	2	4	9	6	2	7	34	24	4	7	0	2	⊕
February	1018	21	10	26	5	67	38	3	3	23	4	3	2	4	9	2	1	17	21	41	14	3	4	11	8	2	10	34	15	6	9	0	⊕	⊕
March	1015	26	14	30	9	55	31	3	4	18	4	6	4	5	9	6	2	14	24	30	11	5	6	15	6	2	8	34	14	6	10	0	⊕	1
April	1011	33	19	37	13	42	25	3	4	15	2	6	6	10	10	6	3	7	27	26	10	8	6	16	8	3	6	31	13	8	10	0	0	1
May	1007	40	24	46	20	28	18	2	2	4	1	10	6	5	4	4	3	11	32	25	12	6	6	9	5	2	8	39	13	7	11	⊕	0	1
June	1001	45	27	48	21	22	17	<1	<1	0	0	8	3	1	2	2	2	10	56	17	10	3	3	4	3	1	11	57	9	10	13	0	0	0
July	998	47	28	49	25	25	18	<1	<1	0	0	4	1	2	2	3	1	16	51	20	3	⊕	⊕	7	3	2	13	63	8	8	14	⊕	0	0
August	1000	47	28	50	23	28	20	<1	<1	0	0	4	1	⊕	3	3	2	17	46	25	6	⊕	0	5	5	2	9	59	13	8	12	0	⊕	0
September	1006	43	24	47	20	31	19	<1	<1	4	0	6	3	1	2	3	2	19	36	30	11	1	⊕	5	4	1	8	52	17	7	10	⊕	1	⊕
October	1012	37	20	41	15	44	22	2	2	3	1	5	3	4	4	4	2	10	23	47	10	3	3	8	5	2	7	35	28	5	7	0	1	1
November	1018	27	13	31	8	58	33	3	3	20	3	4	2	5	4	2	1	13	22	45	8	2	3	9	5	1	7	40	23	5	8	⊕	⊕	1
December	1020	20	10	24	5	76	49	4	4	30	5	2	3	5	4	2	1	12	17	55	8	2	4	10	4	2	6	39	25	4	7	⊕	2	1
Means	1010	34	19	50 *	3 §	46	33			–	–	5	3	4	5	3	2	13	32	33	9	3	3	9	5	2	8	44	17	7	10	–	–	–
Totals	–	–	–	–	–	–	–	–	–	148	25	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	6	6
Extreme values	–	–	–	56†	–1‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	31	31				31		31		30		31									31									31		31	31	31

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.150

WMO No 40857

BŪSHEHR (28° 57′ N, 50° 51′ E) Height above MSL – 8 m
Climatic Table compiled from 10 to 30 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0930	1530	0930	1530	Average fall	No. of days with 1 mm or more	0930									1530									0930	1530	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1019	19	12	24	8	79	70	3	3	66	6	12	25	17	8	3	1	0	6	28	13	6	2	8	7	3	2	46	13	8	13	0	⊕	2
February	1018	20	13	22	11	69	66	3	3	34	4	23	9	8	9	1	0	0	18	32	6	1	3	6	8	3	2	63	8	8	15	⊕	0	1
March	1014	22	15	20	13	67	67	3	3	20	3	14	9	4	11	1	1	0	30	30	1	1	2	6	7	3	10	62	9	9	15	⊕	0	1
April	1011	28	20	28	20	60	64	3	3	9	2	15	8	4	7	5	1	2	30	29	4	1	2	6	6	4	13	51	13	9	15	⊕	0	1
May	1006	34	28	34	28	57	63	1	1	2	⊕	10	6	4	2	5	2	6	43	22	3	1	0	4	7	5	21	55	5	9	15	⊕	0	⊕
June	1000	34	28	36	25	60	66	<1	<1	0	0	10	0	1	5	6	4	2	51	20	1	1	0	1	7	10	23	52	7	10	14	0	0	0
July	997	37	29	38	26	65	66	1	<1	0	0	3	2	3	6	12	1	5	35	33	1	0	0	0	8	20	31	39	1	9	15	⊕	0	⊕
August	999	36	29	37	26	68	67	<1	<1	0	0	3	2	2	1	21	4	3	26	38	0	0	0	1	5	36	32	26	1	7	17	0	⊕	0
September	1005	35	28	36	25	62	63	<1	<1	0	0	14	1	1	2	8	1	0	32	43	1	0	0	0	2	15	25	55	1	7	16	0	⊕	0
October	1011	33	25	34	22	59	63	1	1	8	1	16	7	4	4	7	0	1	12	49	6	1	0	0	7	12	17	52	4	6	15	0	0	⊕
November	1017	25	18	27	16	59	59	2	2	27	3	24	17	7	5	3	1	0	5	39	14	7	1	2	9	6	7	44	10	7	14	0	0	2
December	1019	21	14	25	10	76	70	4	4	62	5	22	14	13	12	2	0	0	3	34	14	8	5	8	9	2	1	42	12	7	13	⊕	1	3
Means	1019	29	24	*	§	65	65	2	2	–	–	14	8	6	6	6	1	2	24	33	5	2	1	3	7	10	16	49	7	8	15	–	–	–
Totals	–	–	–	–	–	–	–	–	–	224	24	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	10
Extreme values	–	–	–	40†	3‡	–	–	–	–	–		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	10	10				10		10		30		10									10									10		10	10	10

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.151

WMO No 40875

BANDAR ‘ABBĀS (27° 13′ N, 56° 22′ E) Height above MSL – 10 m

Climatic Table compiled from 16 to 30 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0930	1530	0930	1530	Average fall	No. of days with 1 mm or more	0930									1530									0930	1530	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1018	23	13	24	9	62	49	3	3	40	3	19	28	7	1	2	2	3	3	34	2	5	5	5	41	34	3	1	5	4	9	⊕	⊕	1
February	1016	23	16	24	11	62	51	3	3	48	3	10	31	9	2	2	4	6	3	34	2	1	2	2	55	29	3	1	5	4	8	0	⊕	1
March	1013	27	19	28	15	61	51	3	3	35	3	5	19	15	7	9	7	4	2	32	1	2	1	2	60	30	1	⊕	2	4	10	⊕	⊕	1
April	1009	31	22	35	18	50	47	2	3	11	1	5	14	10	8	17	9	3	1	34	⊕	⊕	1	1	64	33	⊕	⊕	1	4	11	0	0	⊕
May	1004	34	26	37	22	47	44	1	1	5	0	3	9	11	10	33	7	1	⊕	25	0	⊕	⊕	⊕	63	35	⊕	⊕	0	5	12	⊕	0	⊕
June	999	39	29	42	26	53	50	1	⊕	0	0	2	7	4	13	39	13	1	⊕	21	⊕	0	0	0	69	29	1	0	⊕	5	11	⊕	⊕	⊕
July	997	39	31	41	29	62	58	2	1	1	0	1	3	4	22	46	10	1	⊕	13	0	⊕	⊕	1	87	12	0	0	0	7	11	⊕	⊕	⊕
August	1000	37	31	41	29	64	61	3	1	2	0	⊕	2	5	32	43	4	1	0	12	⊕	⊕	⊕	2	90	6	0	⊕	1	7	11	⊕	⊕	1
September	1005	37	29	39	26	61	58	2	1	1	0	1	7	6	24	34	4	0	1	23	1	⊕	⊕	1	86	10	1	⊕	1	6	11	⊕	0	⊕
October	1011	34	25	38	21	57	50	1	1	1	0	7	18	15	8	9	3	1	2	37	1	1	1	1	66	30	⊕	⊕	⊕	4	10	⊕	⊕	1
November	1015	30	19	33	14	54	46	2	2	5	0	12	34	11	2	1	1	2	1	36	3	2	4	2	60	30	⊕	0	1	5	9	0	⊕	1
December	1018	24	14	25	10	58	49	2	3	24	2	23	28	4	⊕	⊕	2	3	3	37	1	2	7	3	41	37	2	0	6	4	7	⊕	⊕	1
Means	1009	31	23	42*	8§	58	51	2	2	–	–	7	17	8	11	20	6	2	1	28	1	1	2	2	65	26	1	⊕	2	5	10	–	–	–
Totals	–	–	–	–	–	–	–	–	–	173	12	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2	7
Extreme values	–	–	–	47†	5‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	16	16				16		16		30		16									16									16		16	16	16

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.152

WMO No 40893

JĀSK (25° 38′ N, 57° 46′ E) Height above MSL – 5 m

Climatic Table compiled from 16 years observations, 1989 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0930	1530	0930	1530	Average fall	No. of days with mm or more	0930									1530									0930	1530	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1018	23	18	24	15	63	59	3	3	31	–	11	8	19	1	0	0	7	15	39	2	1	5	13	12	16	32	10	8	5	10	0	0	⊕
February	1016	24	19	25	18	64	63	2	2	27	–	3	7	22	3	1	2	19	13	31	1	0	5	11	11	18	38	14	4	6	11	0	0	0
March	1013	28	18	29	–	65	64	3	3	15	–	3	3	20	7	5	3	14	15	30	⊕	0	3	9	11	17	46	9	4	6	11	0	0	0
April	1010	29	22	32	–	63	64	2	3	5	–	2	1	14	9	4	6	26	13	25	2	0	3	3	13	23	51	4	3	6	10	0	⊕	0
May	1005	33	23	38	–	66	67	<1	<1	<1	–	1	1	18	12	5	1	22	11	29	0	0	1	7	18	18	42	4	9	6	9	0	0	0
June	999	35	28	38	–	68	68	<1	<1	<1	–	1	0	24	23	3	6	27	4	12	0	⊕	1	10	17	20	41	4	7	8	10	0	0	0
July	998	34	23	37	–	78	77	2	1	<1	–	1	1	40	35	5	0	9	1	7	1	1	1	33	31	19	13	0	2	11	10	0	0	⊕
August	1001	33	25	38	–	79	79	3	1	<1	–	0	0	54	32	6	1	3	0	4	0	1	1	44	37	7	9	0	1	12	10	0	0	0
September	1006	31	17	25	–	77	74	2	<1	0		0	1	57	15	3	3	1	1	19	0	1	1	26	32	18	21	0	1	9	10	0	⊕	0
October	1012	29	25	28	–	67	65	<1	<1	3	–	1	2	34	3	1	1	8	14	37	1	1	⊕	12	16	25	39	2	4	5	9	0	0	0
November	1016	29	21	31	–	63	64	1	2	6	–	5	2	31	4	1	4	9	8	36	2	2	2	11	18	23	37	4	1	5	9	0	⊕	0
December	1018	26	19	29	–	62	60	2	3	29	–	12	8	26	0	1	4	2	12	37	1	1	7	14	16	15	34	7	5	5	9	⊕	⊕	⊕
Means	1009	30	22	39*	–§	68	67	2	2	–	–	3	3	29	12	3	3	12	9	26	1	1	2	16	19	18	34	5	4	7	10	–	–	–
Totals	–	–	–	–	–	–	–	–	–	116	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	⊕	⊕
Extreme values	–	–	–	41†	–‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	16	16				16		16		NK		16									16									16		16	16	16

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.153

WMO No 40898

CHĀH BAHĀR (25° 17′ N, 60° 37′ E) Height above MSL – 8 m

Climatic Table compiled from 16 to 30 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
												0930									1530													
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0930	1530	0930	1530	Average fall	No. of days with 1 mm or more	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	0930	1530	Gale	Fog	Thunder
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1017	25		28		63	60	2	2	29	3	7	25	14	4	1	2	9	23	15	2	2	5	16	14	32	23	2	4	7	9	⊕	0	⊕
February	1015	26		27		66	69	2	2	38	3	5	16	16	11	4	6	14	18	14	⊕	1	3	11	22	37	23	⊕	2	7	9	⊕	⊕	⊕
March	1013	28		27		68	72	2	3	15	1	1	5	8	21	7	14	21	7	16	1	1	3	9	20	38	20	4	4	7	10	0	⊕	⊕
April	1009	29		33		71	73	2	2	6	1	⊕	3	3	22	12	23	25	5	6	1	0	1	9	23	45	19	1	2	7	9	0	⊕	⊕
May	1005	33		34		75	75	1	1	<1	0	⊕	1	5	40	14	21	10	2	7	1	⊕	2	19	32	32	10	⊕	6	7	8	⊕	0	⊕
June	999	35		39		79	79	1	1	1	0	1	1	6	49	15	15	9	⊕	4	1	⊕	1	25	33	27	9	2	2	8	10	0	⊕	⊕
July	998	32		34		78	79	2	1	6	1	1	0	14	60	16	5	2	1	2	⊕	⊕	3	42	37	12	2	2	2	9	10	⊕	⊕	⊕
August	1001	31		33		78	79	3	2	2	1	1	1	9	61	20	3	2	⊕	2	1	0	2	37	46	13	1	1	0	9	10	⊕	⊕	0
September	1006	31		33		76	77	2	1	1	0	⊕	1	10	50	20	11	3	1	4	2	1	2	24	44	25	1	1	⊕	8	9	⊕	0	0
October	1011	31		33		73	74	1	<1	0	0	3	5	6	25	12	19	12	8	12	1	⊕	1	9	26	46	13	1	3	6	8	⊕	⊕	⊕
November	1015	29		31		62	65	1	1	4	0	2	18	11	16	5	9	11	15	13	1	⊕	2	9	20	42	20	2	4	6	8	⊕	⊕	0
December	1017	26		27		63	63	2	2	14	1	5	25	14	8	2	4	12	13	16	1	2	4	12	21	36	17	⊕	6	7	8	⊕	0	⊕
Means	1009	30		40 *	§	71	72	2	1	–	–	2	8	10	31	11	11	10	8	9	1	1	2	19	28	32	13	1	3	7	9	–	–	–
Totals	–	–	–	–	–	–	–	–	–	116	11	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	2
Extreme values	–	–	–	52†	–‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	16	16				16		16		30		16									16									16		16	16	16

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.154

WMO No 41150

BAHRAIN (26° 16′ N, 50° 39′ E) Height above MSL – 2 m

Climatic Table compiled from 30 to 31 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
												0900									1500													
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0900	1500	0900	1500	Average fall	No. of days with 1 mm or more	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	0900	1500	Gale	Fog	Thunder
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1019	20	14	25	10	74	62	3	3	15	2	14	2	2	8	13	4	23	34	1	21	4	9	9	9	1	3	45	0	11	12	⊕	1	1
February	1017	22	15	27	11	71	59	3	3	16	2	20	5	5	10	11	3	14	32	⊕	33	8	14	10	5	1	1	29	0	11	13	⊕	⊕	1
March	1014	25	18	32	13	65	55	3	3	14	2	24	5	6	11	11	5	12	28	0	43	11	16	8	3	⊕	1	18	0	10	12	⊕	⊕	1
April	1011	30	22	37	18	55	48	3	3	10	1	24	6	7	7	11	4	17	25	⊕	45	14	17	6	2	1	⊕	15	0	10	12	⊕	⊕	1
May	1007	35	26	41	23	48	43	2	2	1	0	26	5	3	4	7	4	15	37	0	53	14	12	3	1	⊕	⊕	17	0	11	12	⊕	⊕	⊕
June	1001	38	29	43	26	47	44	<1	<1	0	0	17	2	2	3	3	3	17	54	0	51	10	8	1	1	0	⊕	30	0	12	14	⊕	0	⊕
July	998	39	31	44	27	50	48	1	1	0	0	14	2	5	3	4	3	21	46	0	53	14	12	1	⊕	⊕	0	19	0	11	12	⊕	⊕	0
August	1000	39	31	43	28	56	52	1	<1	0	0	14	3	7	5	7	3	19	42	0	47	20	17	1	0	⊕	⊕	15	0	10	12	⊕	0	⊕
September	1006	37	29	40	26	59	51	<1	<1	0	0	18	3	6	6	8	5	23	32	0	52	19	15	2	1	⊕	⊕	11	0	9	10	⊕	⊕	0
October	1012	34	26	38	23	63	53	1	1	1	0	15	3	4	7	12	9	22	27	0	48	16	15	4	3	⊕	1	13	0	9	10	⊕	⊕	⊕
November	1017	28	21	33	17	68	58	2	2	4	1	17	3	4	5	14	6	19	32	⊕	40	8	9	8	6	1	1	27	0	10	11	⊕	⊕	1
December	1019	23	17	27	12	74	63	3	3	11	2	13	2	2	6	17	5	22	32	1	22	5	4	8	12	1	4	43	0	10	11	⊕	⊕	1
Means	1010	31	23	45*	10§	60	53	2	2	–	–	18	3	4	6	10	5	19	35	⊕	43	12	12	5	4	⊕	1	23	0	10	12	–	–	–
Totals	–	–	–	–	–	–	–	–	–	72	10	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3	6
Extreme values	–	–	–	48†	8‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	31	31				31		31		30		31									31									31		31	31	31

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

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1.155

WMO No 41170

DOHA AIRPORT (25° 15′ N, 51° 34′ E) Height above MSL – 10 m

Climatic Table compiled from 30 to 31 years observations, 1960 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
												0900									1500													
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	0900	1500	0900	1500	Average fall	No. of days with 1 mm or more	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	0900	1500	Gale	Fog	Thunder
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1019	22	14	27	9	70	53	2	3	13	2	11	2	3	8	8	7	24	35	2	21	15	17	15	1	1	5	26	⊕	8	10	0	2	⊕
February	1017	24	15	30	11	67	50	3	2	17	2	23	3	8	10	7	4	11	32	1	23	18	22	13	1	1	1	22	⊕	9	12	0	1	1
March	1014	27	17	34	13	56	45	3	3	16	2	31	5	8	10	10	4	8	23	2	23	23	24	13	2	1	2	13	0	10	12	⊕	⊕	2
April	1011	33	22	40	17	42	37	2	3	9	1	33	5	5	8	12	6	11	19	⊕	26	25	30	9	1	⊕	1	7	⊕	10	12	0	⊕	1
May	1007	39	27	44	22	31	31	1	1	4	0	35	4	5	5	6	5	11	29	1	34	27	23	7	⊕	0	⊕	9	0	10	13	0	⊕	⊕
June	1000	42	29	46	25	30	35	<1	<1	0	0	34	3	4	3	3	4	13	34	1	36	24	21	2	⊕	⊕	⊕	16	0	11	14	⊕	⊕	0
July	998	42	30	47	27	38	46	1	1	0	0	24	6	10	3	5	4	16	31	1	23	28	30	4	⊕	0	⊕	14	⊕	9	13	⊕	⊕	⊕
August	1000	41	30	46	26	48	48	1	1	0	0	30	6	12	5	7	7	11	22	1	19	33	37	4	⊕	0	⊕	7	0	9	12	0	⊕	0
September	1006	39	28	43	25	53	47	<1	<1	0	0	24	5	13	6	11	9	13	18	2	12	33	45	7	⊕	0	⊕	3	0	7	11	0	⊕	0
October	1012	35	25	41	21	56	46	<1	1	1	0	22	3	10	6	10	9	17	21	2	14	30	38	12	1	⊕	1	5	0	7	10	0	1	⊕
November	1017	30	21	35	16	62	50	1	2	3	0	22	3	4	6	7	7	14	34	2	25	24	22	13	2	⊕	1	13	⊕	8	10	⊕	1	1
December	1019	25	16	29	12	70	55	2	3	12	1	15	1	3	6	10	5	23	36	2	22	16	18	15	1	1	4	23	⊕	8	10	0	2	1
Means	1010	33	23	48 *	9 §	51	46	1	2	–	–	26	4	7	6	8	6	14	28	1	23	25	28	9	1	⊕	1	13	⊕	9	12	–	–	–
Totals	–	–	–	–	–	–	–	–	–	75	8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	⊕	8	6
Extreme values	–	–	–	50†	5‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	31	31				31		31		30		31									31									31		31	31	31

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.156

WMO No 41196

SHARJAH AIRPORT (25° 20′ N, 55° 31′ E) Height above MSL – 33 m
Climatic Table compiled from 21 years observations, 1984 to 2004

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	1000	1600	1000	1600	Average fall	No. of days with mm or more	1000									1600									1000	1600	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1018	24	12	29	7	62	50	3	3	26	–	1	4	18	15	41	8	8	2	1	15	2	2	1	2	4	38	36	⊕	6	9	⊕	1	⊕
February	1016	26	14	32	8	59	49	2	2	17	–	3	6	14	14	33	12	15	2	1	17	2	2	1	3	1	38	34	⊕	7	10	⊕	1	1
March	1014	29	16	37	10	52	44	3	3	10	–	5	5	11	10	27	23	14	4	1	16	2	3	1	3	2	41	32	0	7	10	0	2	2
April	1010	34	19	41	14	39	38	2	2	9	–	4	3	5	4	26	33	20	4	1	8	1	⊕	1	1	2	48	40	⊕	7	10	⊕	2	⊕
May	1006	39	23	44	18	31	35	1	1	<1	–	4	2	4	2	27	38	19	4	0	7	⊕	1	⊕	0	1	55	36	0	7	11	⊕	1	⊕
June	1000	42	25	46	22	37	40	<1	<1	0	–	3	2	9	5	36	33	11	2	⊕	7	⊕	1	⊕	0	3	44	45	0	7	11	0	1	0
July	997	42	28	46	24	42	45	1	1	1	–	1	3	15	12	36	25	5	2	1	14	2	5	⊕	1	2	30	46	1	7	10	0	1	⊕
August	999	43	28	47	24	42	46	1	1	0	–	1	2	19	17	38	15	5	2	1	19	2	5	⊕	⊕	⊕	18	56	0	7	11	0	1	⊕
September	1005	40	25	44	21	41	45	<1	<1	0	–	3	4	14	13	40	21	3	2	1	13	1	3	0	0	⊕	22	60	0	7	10	0	2	⊕
October	1012	36	21	40	16	47	45	<1	1	0	–	7	9	18	10	34	15	4	3	⊕	16	1	2	⊕	⊕	⊕	24	57	0	5	10	0	3	⊕
November	1016	31	17	35	12	52	47	1	1	14	–	2	8	22	18	33	9	6	1	2	13	⊕	2	⊕	1	1	33	50	⊕	5	9	⊕	1	⊕
December	1018	27	14	31	9	60	51	2	3	26	–	1	6	22	18	37	7	6	1	1	19	2	3	1	2	3	32	37	⊕	6	9	0	1	⊕
Means	1009	35	20	47 *	6§	47	45	1	1	–	–	3	4	14	12	34	20	10	2	1	14	1	3	⊕	1	2	35	44	⊕	7	10	–	–	–
Totals	–	–	–	–	–	–	–	–	–	103	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	17	4
Extreme values	–	–	–	48†	2‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	21	21				21		21		NK		21									21									21		21	21	21

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.157

WMO No 41216

ABU DHABI BATEEN AIRPORT (24° 26′ N, 54° 28′ E) Height above MSL – 3 m

Climatic Table compiled from 28 to 30 years observations, 1960 to 2001

Month	Average pressure at MSL	Temperatures				Average humidity		Average cloud cover		Precipitation		Wind distribution – Percentage of observations from																		Mean wind speed		Number of days with		
		Mean daily max.	Mean daily min.	Mean highest in each month	Mean lowest in each month	1000	1600	1000	1600	Average fall	No. of days with 1 mm or more	1000									1600									1000	1600	Gale	Fog	Thunder
												N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm					
	hPa	°C	°C	°C	°C	%	%	Oktas		mm																				Knots				
January	1018	24	15	29	10	67	52	3	3	7	–	5	4	6	16	26	11	5	20	7	36	1	1	2	5	4	12	38	1	7	10	0	1	⊕
February	1016	25	16	32	12	64	51	3	2	21	–	12	6	6	17	22	5	6	21	5	38	3	1	4	8	5	9	33	⊕	9	12	⊕	1	1
March	1014	28	18	36	13	58	47	3	3	15	–	14	7	6	15	20	8	8	19	3	40	4	1	2	6	4	6	37	⊕	9	12	⊕	1	1
April	1010	33	21	40	16	48	40	2	2	6	–	13	5	4	9	21	18	9	17	5	44	2	1	⊕	1	1	4	46	⊕	8	13	⊕	1	1
May	1006	38	25	43	21	43	37	1	1	1	–	7	2	3	6	21	27	14	15	5	41	1	0	⊕	⊕	1	7	50	0	7	13	⊕	⊕	⊕
June	1000	40	27	44	24	48	43	⊕	⊕	0	–	7	3	2	7	18	31	17	12	3	37	⊕	⊕	0	1	1	8	54	⊕	8	13	⊕	⊕	0
July	997	41	30	45	26	49	48	1	1	<1	–	5	3	4	12	25	29	12	7	3	46	1	⊕	⊕	1	1	10	40	⊕	7	13	⊕	0	⊕
August	999	42	30	46	27	50	52	1	1	2	–	7	5	3	15	36	21	6	4	3	56	1	⊕	⊕	1	2	5	35	⊕	7	13	⊕	⊕	⊕
September	1005	39	27	43	24	51	45	1	⊕	0	–	4	7	5	17	40	16	4	2	4	52	⊕	1	⊕	1	1	5	40	0	7	12	0	1	0
October	1012	35	24	39	20	56	47	1	1	<1	–	3	8	10	17	34	16	2	3	6	53	1	⊕	⊕	⊕	1	3	41	0	6	12	0	1	0
November	1016	31	20	34	17	59	49	1	1	<1	–	6	5	8	15	30	14	1	11	9	51	⊕	⊕	1	⊕	2	5	40	0	6	11	0	1	⊕
December	1018	26	16	30	13	66	53	3	3	5	–	5	4	5	14	31	13	6	15	7	41	1	⊕	1	4	4	10	38	1	7	10	0	1	⊕
Means	1009	34	23	45 *	10§	55	47	2	2	–	–	7	5	5	13	27	18	8	12	5	45	1	1	1	2	2	7	41	⊕	7	12	–	–	–
Totals	–	–	–	–	–	–	–	–	–	57	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	8	4
Extreme values	–	–	–	49†	8‡	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
No. of years observations	28	28				28		28		30		28									28									28		28	28	28

* Mean of highest each year
§ Mean of lowest each year

† Highest recorded temperature
‡ Lowest recorded temperature

⊕ Rare
⊖ All observations

1.158

METEOROLOGICAL CONVERSION TABLE AND SCALES

Fahrenheit to Celsius

°Fahrenheit

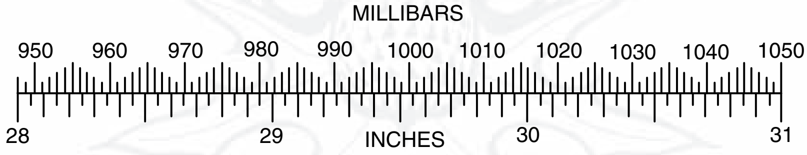
	0	1	2	3	4	5	6	7	8	9
°F				Degrees Celsius						
–100	–73·3	–73·9	–74·4	–75·0	–75·6	–76·1	–76·7	–77·2	–77·8	–78·3
–90	–67·8	–68·3	–68·9	–69·4	–70·0	–70·6	–71·1	–71·7	–72·2	–72·8
–80	–62·2	–62·8	–63·3	–63·9	–64·4	–65·0	–65·6	–66·1	–66·7	–67·2
–70	–56·7	–57·2	–57·8	–58·3	–58·9	–59·4	–60·0	–60·6	–61·1	–61·7
–60	–51·1	–51·7	–52·2	–52·8	–53·3	–53·9	–54·4	–55·0	–55·6	–56·1
–50	–45·6	–46·1	–46·7	–47·2	–47·8	–48·3	–48·9	–49·4	–50·0	–50·6
–40	–40·0	–40·6	–41·1	–41·7	–42·2	–42·8	–43·3	–43·9	–44·4	–45·0
–30	–34·4	–35·0	–35·6	–36·1	–36·7	–37·2	–37·8	–38·3	–38·9	–39·4
–20	–28·9	–29·4	–30·0	–30·6	–31·1	–31·7	–32·2	–32·8	–33·3	–33·9
–10	–23·3	–23·9	–24·4	–25·0	–25·6	–26·1	–26·7	–27·2	–27·8	–28·3
–0	–17·8	–18·3	–18·9	–19·4	–20·0	–20·6	–21·1	–21·7	–22·2	–22·8
+0	–17·8	–17·2	–16·7	–16·1	–15·6	–15·0	–14·4	–13·9	–13·3	–12·8
10	–12·2	–11·7	–11·1	–10·6	–10·0	–9·4	–8·9	–8·3	–7·8	–7·2
20	–6·7	–6·1	–5·6	–5·0	–4·4	–3·9	–3·3	–2·8	–2·2	–1·7
30	–1·1	–0·6	0	+0·6	+1·1	+1·7	+2·2	+2·8	+3·3	+3·9
40	+4·4	+5·0	+5·6	6·1	6·7	7·2	7·8	8·3	8·9	9·4
50	10·0	10·6	11·1	11·7	12·2	12·8	13·3	13·9	14·4	15·0
60	15·6	16·1	16·7	17·2	17·8	18·3	18·9	19·4	20·0	20·6
70	21·1	21·7	22·2	22·8	23·3	23·9	24·4	25·0	25·6	26·1
80	26·7	27·2	27·8	28·3	28·9	29·4	30·0	30·6	31·1	31·7
90	32·2	32·8	33·3	33·9	34·4	35·0	35·6	36·1	36·7	37·2
100	37·8	38·3	38·9	39·4	40·0	40·6	41·1	41·7	42·2	42·8
110	43·3	43·9	44·4	45·0	45·6	46·1	46·7	47·2	47·8	48·3
120	48·9	49·4	50·0	50·6	51·1	51·7	52·2	52·8	53·3	53·9

Celsius to Fahrenheit

°Celsius

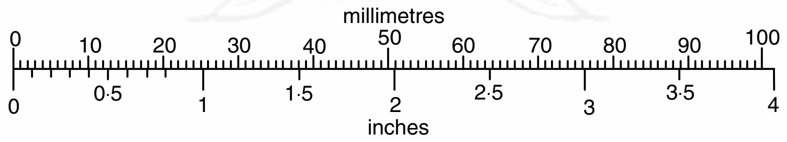
	0	1	2	3	4	5	6	7	8	9
°C				Degrees Fahrenheit						
–70	–94·0	–95·8	–97·6	–99·4	–101·2	–103·0	–104·8	–106·6	–108·4	–110·2
–60	–76·0	–77·8	–79·6	–81·4	–83·2	–85·0	–86·8	–88·6	–90·4	–92·2
–50	–58·0	–59·8	–61·6	–63·4	–65·2	–67·0	–68·8	–70·6	–72·4	–74·2
–40	–40·0	–41·8	–43·6	–45·4	–47·2	–49·0	–50·8	–52·6	–54·4	–56·2
–30	–22·0	–23·8	–25·6	–27·4	–29·2	–31·0	–32·8	–34·6	–36·4	–38·2
–20	–4·0	–5·8	–7·6	–9·4	–11·2	–13·0	–14·8	–16·6	18·4	–20·2
–10	+14·0	+12·2	+10·4	+8·6	+6·8	+5·0	+3·2	+1·4	–0·4	–2·2
–0	32·0	30·2	28·4	26·6	24·8	23·0	21·2	19·4	+17·6	+15·8
+0	32·0	33·8	35·6	37·4	39·2	41·0	42·8	44·6	46·4	48·2
10	50·0	51·8	53·6	55·4	57·2	59·0	60·8	62·6	64·4	66·2
20	68·0	69·8	71·6	73·4	75·2	77·0	78·8	80·6	82·4	84·2
30	86·0	87·8	89·6	91·4	93·2	95·0	96·8	98·6	100·4	102·2
40	104·0	105·8	107·6	109·4	111·2	113·0	114·8	116·6	118·4	120·2
50	122·0	123·8	125·6	127·4	129·2	131·0	132·8	134·6	136·4	138·2

MILLIBARS TO INCHES



MILLIMETRES TO INCHES

(1) (for small values)



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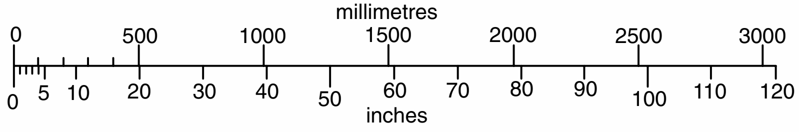

NOTES

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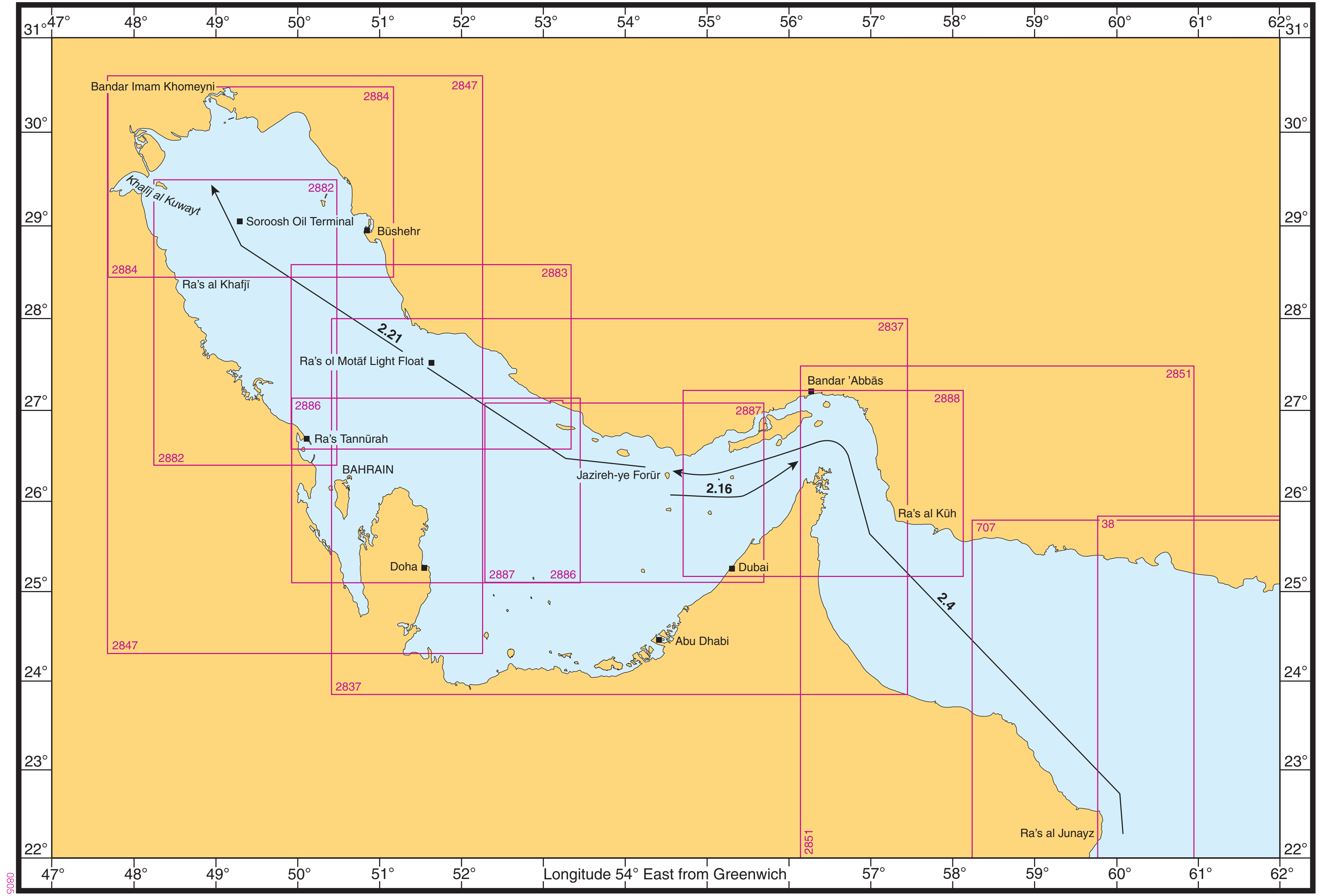
Chapter 2 - Main route through Persian Gulf - Gulf of Oman to the head of Persian Gulf



Home Contents Index

CHAPTER 2

MAIN ROUTE THROUGH PERSIAN GULF — GULF OF OMAN TO THE HEAD OF PERSIAN GULF

GENERAL INFORMATION

Chart 2858

Scope of the chapter

2.1

1 This chapter describes the main route through Persian Gulf from Ra's al Junayz (22°25′N 59°50′E), in the S approach to Gulf of Oman, through the Strait of Hormuz to Ra's ol Moţāf Light-float (27°37′N 51°27′E); it continues NW, passing SW of Soroosh Oil Terminal (29°01′N 49°27′E), to the outer end of Khawr al Kafka (29°36′N 48°52′E). The route to Khowr-e Mūsá Light-float (29°37′N 49°34′E) is described at 6.64.

2 It is arranged as follows:

Ra's al Junayz to Jazīreh-ye Forūr (2.4).
Jazīreh-ye Forūr to Head of Persian Gulf (2.21).

Also described:

Soroosh Oil Terminal (29°01′N 49°27′E) (2.28).

Persian Gulf and Strait of Hormuz Pilots

2.2

1 Pilots for passage through Persian Gulf board in the vicinity of 25°12′N 56°36′E, E of Fujairah (3.174); and 12 miles NNE, E Khawr Fakkān (3.230). See *Admiralty List of Radio Signals Volume 6 (3).*

Offshore oilfields

2.3

1 Production platforms and associated structures, including tanker moorings, storage tankers and platforms on pipelines, generally exhibit Mo(U) lights, aircraft obstruction lights, and sound audible fog signals. Unauthorised navigation is prohibited within 500 m of all such structures including storage tankers which can swing about their moorings. Tankers manoeuvring in the vicinity of platforms and moorings should be given a wide berth. For further information see *The Mariner's Handbook.*

RA'S AL JUNAYZ TO JAZĪREH-YE FORŪR

General information

Charts 2851, 2888, 2837, 3171, 3172, 3174, 2441, 2887

Route

2.4

1 This sub-section describes the route from the Ra's al Ḩadd TSS (22°33′N 60°01′E), in Gulf of Oman, through the Strait of Hormuz TSS and the Tonb-Forūr TSS to Jazīreh-ye Forūr (26°18′N 54°31′E).

Topography

2.5

1 The Iranian coast, on the E side of Gulf of Oman, from Jāsk (25°39′N 57°46′E) (4.57) to Jazīreh-ye Hormoz (110 miles NW) (5.13), is low; the background hills render it difficult to judge distances offshore. Kūh-e Mobārak (25°51′N 57°18′E) (4.61) is conspicuous; see 3.13, 3.268 and 4.45.

Depths

2.6

1 With the exception of Patrick Stewart Bank (26°40′N 56°09′E) (5.120) and the depths of 38 m (reported 1974), 13 miles WSW, and 41 m (reported 1973), 19 miles SW, depths within the Strait of Hormuz are generally more than 50 m. A depth of 32 m, over which tide rips can occur, lies in the middle of the W bound lane of the Tonb-Forūr TSS, N of Jazīreh-ye Tonb-e Bozorg (26°16′N 55°18′E).

Traffic regulations

2.7

1 **Traffic separation schemes.** The Ra's al Ḩadd TSS (3.19) has been established between Ra's al Junayz (22°26′N 59°50′E) and Ra's al Ḩadd, 7 miles NNW. The Strait of Hormuz TSS lies in the E approach to the Strait of Hormuz; an Inshore Traffic Zone is between its SSW side and the Musandam Peninsula. The Tonb-Forūr TSS has been established on the N side of the W approach to the strait, between Coote Rock (26°17′N 55°24′E) and Jazīreh-ye Forūr, 48 miles W.

2 These traffic separation schemes are IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See the *Annual Summary of Admiralty Notices to Mariners.*

Natural conditions

2.8

1 **Local magnetic anomaly.** A local deflection of the compass, up to 10°, was reported (1963) about 3 miles SW of Jazīreh-ye Forūr (26°18′N 54°31′E); similar deflections have been reported in this area.

2 **Tidal streams** off the Arabian coast, N of Jazīrat Līmah (25°57′N 56°28′E), are very strong especially N of Jazīrat Umm al Fayyārīn, 15 miles NNE; and off As Salāmah wa Banāt-hā (The Quoins) (26°30′N 56°31′E), in the vicinity of which the in-going stream sets NW, and the out-going SE, at rates of between 3 and 4 kn at springs. Overfalls occur over the rocky ledges and shoal patches between Dīdamār (26°29′N 56°32′E) and Fanakū, 1¼ miles NNW. The streams over Coote Rock (26°17′N 55°24′E) are also strong and attain rates of 2 to 3 kn causing strong tide-rips; streams also set strongly past Jazīreh-ye Forūr (26°18′N 54°31′E) and caution is necessary if approaching the island in poor visibility.

3 **Flow.** Between Jazīreh-ye Tonb-e Bozorg (26°16′N 55°18′E) and Jazīreh-ye Lavan (6.34), 110 miles WNW, a N set is sometimes experienced and should be guarded against.

Local weather. Haze may occur during a *shamāl* reducing visibility in the area; Jazīreh-ye Forūr (26°18′N 54°31′E) (2.15), being dark-coloured and high, is the easiest of the islands to identify.

Exercise areas

2.9

1 Submarines frequently exercise, surfaced and dived, in the vicinity of 26°40′N 56°50′E; a good lookout should be

kept when navigating through the area for submarines and any escorting vessels.

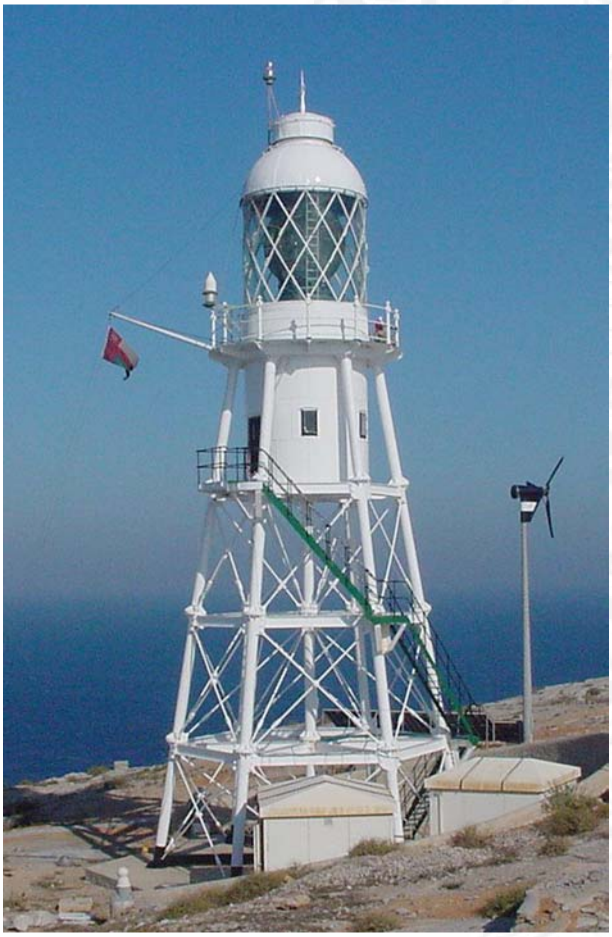
Firing practice exercise areas lie E of Jazīrat Umm al Fayyārīn (26°11′N 56°33′E) and N of Jazīrat Umm al Ghanam (26°21′N 56°21′E); see 3.4, *The Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

Principal marks

2.10

1 **Major lights:**

Ra's al Ḩadd Light (22°32′·0N 59°47′·9E) (3.22).
Port of Fujairah Light (25°10′·8N 56°21′·0E) (3.195).
Murbaḩ Light (25°15′·6N 56°22′·0E) (3.195).
Ra's al Kūh Light (25°50′·2N 57°18′·5E) (4.54).
Bandar-e Sīrīk Light (26°30′·0N 57°05′·4E) (4.64).
Dīdamār Light (Little Quoin Island Light) (white framework tower, 24 m in height) (26°28′·5N 56°32′·3E) exhibited from Dīdamār Island; the light is obscured by Fanakū Island (133°–142½°) and by As Salāmah (156°–160¾°).



Dīdamār Light (2.10)
(Original dated 2000)

(Photograph – Capt. Peter Christmas RN)

Other aids to navigation

2.11

1 **Racons:**

Ra's al Ḩadd (22°32′N 59°48′E).
Jazīrat Muscaţ (23°37′N 58°36′E).
Jazā'ir ad Daymānīyāt Islands (23°51′N 58°04′E).
Ra's al Kūh Light (25°50′N 57°18′E).
Dīdamār (Little Quoin Island) (26°29′N 56°32′E).
Jazīreh-ye Lārak (26°52′N 56°22′E).
Jazīreh-ye Hengām Light (26°38′N 55°54′E).
Bukha Oilfield Platform (26°15′N 56°03′E).
Jazīreh-ye Tonb-e Bozorg Light (26°16′N 55°18′E).
Jazīreh-ye Forūr Light (26°18′N 54°31′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from Red Sea and Gulf of Aden Pilot)

Ra's al Junayz to Jazīreh-ye Forūr

2.12

1 From a position E of Ra's al Junayz (22°25′N 59°50′E), at the S end of the N bound lane of the Ra's al Ḩadd TSS, the track initially leads NW for about 250 miles to a position SW of the Ra's al Kūh TSS (4.51); it then continues NNW for 55 miles to the outer end of the inward bound lane of the Strait of Hormuz TSS, passing:

NE of Ra's al Ḩadd (22°32′N 59°48′E) (3.24), thence:
NE of Jazīrat Muscaţ (23°37′N 58°36′E) (3.51), thence:
2 SW of Ra's al Kūh (25°48′N 57°18′E) (4.56) and the offlying TSS, thence:
ENE of Ra's Dibā (25°36′N 56°21′E) (3.261), thence:
WSW of Ra's osh Shīre (26°01′N 57°12′E) (4.65), thence:
ENE of Jazīrat Umm al Fayyārīn (26°11′N 56°33′E) (3.286), thence:
ENE of Ra's Qabr al Hindī (26°19′N 56°31′E) (3.286), thence:
3 ENE of Jazīrat Musandam (26°22′N 56°32′E); the rocky islet of Kachalū (3.292) lies about 5 cables NNE of the N end of the island. Thence:
Through to the outer end of the inward bound lane of the Strait of Hormuz TSS.

2.13

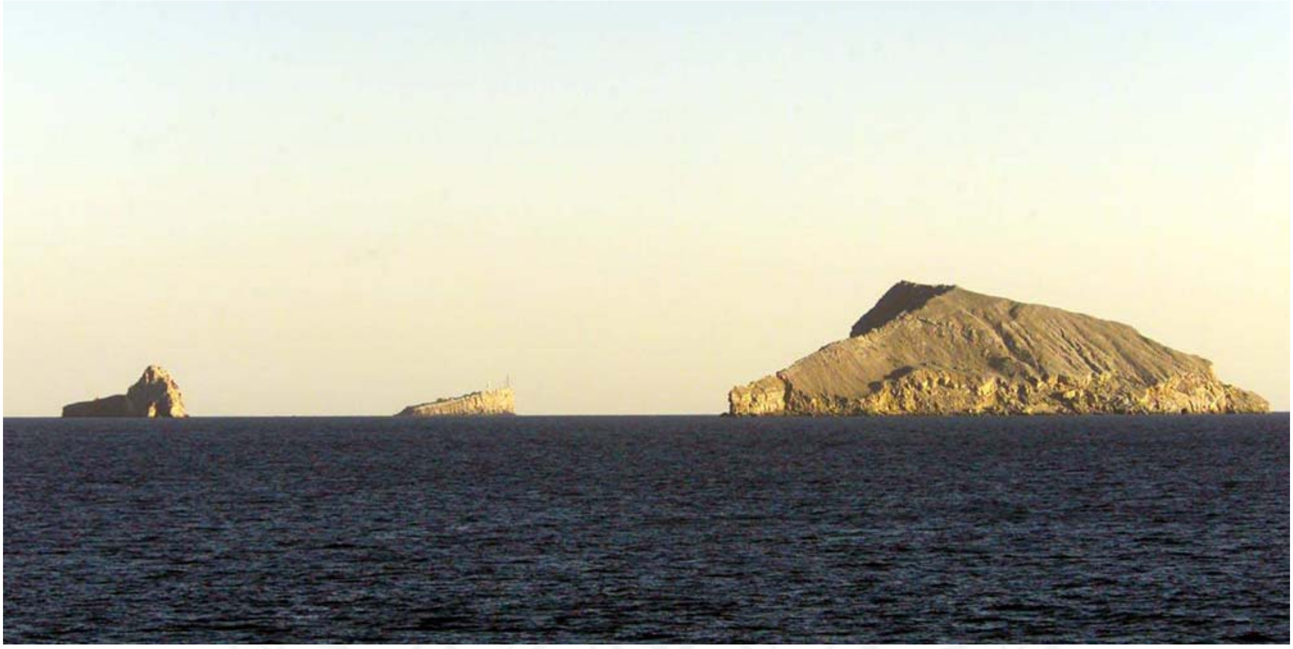
1 The track continues through the Strait of Hormuz TSS, initially NNW, then W and WSW, passing:

ENE of Dīdamār (Little Quoin) (26°29′N 56°32′E), a wedge shaped islet, 51 m high, fringed by a reef, its highest and vertical part is at its S end, but its N end is also small bluff; a stone jetty extends from its N side; Ennerdale Rock lies 1½ miles SW. Dīdamār Light (2.10) is exhibited from the islet. Thence:
2 ENE of Fanakū (Gap Island) (26°30′N 56°32′E) which is 74 m high near its W end and is cliffy on all sides; near its E end is a tower of rock easily recognised from SE. Thence:
N of As Salāmah (Great Quoin) (26°30′N 56°31′E), a wedge shaped island, 161 m high, with a vertical side at its SE end; it is the N-most island of the As Salāmah wa Banāt-hā (The Quoins) group which all lie NNE of the Musandam Peninsula (3.282) and includes Dīdamār and Fanakū. A small above water rock lies about 100 m N of the island. Thence:
3 SSE of Jazīreh-ye Lārak (26°52′N 56°22′E) (5.14).

2.14

1 From the inner end of the inward bound lane of the Strait of Hormuz TSS the track continues WSW to the E end of the W bound lane of the Tonb-Forūr TSS, passing:

NNW of Ra's Shurayţah (26°23′N 56°23′E) (3.296), thence:



Dīdamār Franakū and As Salāmah Islands (2.13)
(Original dated 2002)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

SSE of Patrick Stewart Bank (26°40′N 56°09′E) (5.120), thence:

NNW of Bukha Oilfield Production Platform (lit) (26°15′N 56°03′E), thence:

SSE of Jazīreh-ye Hengām (26°39′N 55°53′E) from which a light (5.120) is exhibited.

2 Vessels bound for ports or terminals in the S part of Persian Gulf see 1.11.

(Directions for the S side of Persian Gulf are given at 7.17)

2.15

1 The track continues through Tonb-Forūr TSS initially WSW, then W, passing:

NNW of Saleh Oilfield (26°10′N 55°43′E) (7.18), thence:

NNW of a wreck (26°04′N 55°34′E) with a least depth of 18·8 m over it; a light-buoy (N cardinal) is moored on its N side. Thence:

SSE of The Flat (26°30′N 55°20′E) (5.126); discoloured water marks its edge over which fishing boats often lie. Thence:

NNW of Coote Rock (26°17′N 55°24′E), with a least depth of 8·2 m over it, over which tide-rips often occur, thence:

2 NNW of Jazīreh-ye Tonb-e Bozorg (26°16′N 55°18′E) (2.18); a light (metal framework tower, 25 m in height; obscured 007°–080°) is exhibited from the summit of the island. A shoal with a least depth of 32 m over it and over which tide rips can occur, lies in the middle of the W bound lane of the TSS, N of the island. Thence:

NNW of a shoal (26°17′N 55°15′E), with a least depth of 19.7 m over it, over which heavy tide-rips often occur, thence:

3 SSE of Mariner Shoal (26°23′N 55°12′E) a detached shoal lying close off the S side of The Flat (5.126). Mariner Shoal Light-buoy (S cardinal) is moored off its S side; its immediate locality is best avoided as depths are irregular. Thence:

N of Jazīreh-ye Nabī Tonb-e Kūchek (26°14′N 55°09′E) (2.19); a light (white beacon) is exhibited from its NE side, a flagstaff stands close N. Thence:

S of Ra's osh Sheyās (26°30′N 54°48′E) (5.113), thence:

4 S of Ra's-e Bostāneh (26°30′N 54°37′E), a low and brown point; a light (5.137) is exhibited from a position on the coast about 1 mile NW of the point. Thence:

N of Jazīreh-ye Forūr (26°18′N 54°31′E) (2.20); a light (white metal framework tower, red bands; 17 m in height) is exhibited from its summit. And:

S of Kad Forūr (26°26′N 54°32′E) (5.137).

5 Vessels bound for for Jazīrat Dās or other ports and terminals farther S and W see 1.11.

(Directions for Jazīrat Dās Deep Water Channel are given at 7.260, for other ports and terminals on the S side of Persian Gulf, farther S and W, are given at 7.279)

East bound route from Jazīreh-ye Bāni Forūr to Ra's Shurayţah

2.16

1 From a position W of the inner end of the E bound lane of the Tonb-Forūr TSS the track leads E, then ENE, for about 110 miles to the inner end of the E bound lane of the Strait of Hormuz TSS, passing:

N of Jazīreh-ye Bāni Forūr (26°07′N 54°27′E), a small island with a remarkable dark-coloured saddle shaped hill, 40 m high, situated about 8½ miles SSW of Jazīreh-ye Forūr; a light is exhibited from the E side of the island. Thence:

S of Jazīreh-ye Forūr (26°18′N 54°31′E) (2.15), thence:

2 N of Abū Mūsá Light-float (yellow) (25°59′·0N 55°01′·0E) moored on the E side of a shoal bank NNW of Abū Mūsá (7.81), thence:

S of of Jazīreh-ye Nabī Tonb-e Kūchek (26°14′N 55°09′E) (2.15), thence:

SSE of a rocky shoal (26°10′N 55°18′E), with a least depth of 15 m over it, lying S of Jazīreh-ye Tonb-e Bozorg (2.18); a light-buoy (S cardinal) is moored close SE of the shoal. Thence:

3 SSE of a rocky shoal (26°11′N 55°21′E), with a least depth of 11·8 m over it, lying near the S edge of the shoal extending S from Jazīreh-ye Tonb-e Bozorg; a light-buoy (S cardinal) is moored close SSW of its S edge. Thence:

NNW of VITOL-B (lit) (26°05′N 55°27′E) an oil production platform, thence:

NNW of a wreck (26°04′N 55°34′E) with a least depth of 18·8 m over it; a light-buoy (N cardinal) is moored close N. Thence:

NNW of Saleh Oilfield (26°10′N 55°43′E) (7.18), thence:

4 NNW of Bukha Oilfield Production Platform (lit) (26°15′N 56°03′E), thence:

SSE of Jazīreh-ye Hengām (26°39′N 55°53′E) from which a light (5.120) is exhibited, thence:

NNW of Ra’s Shaykh Mas‘ūd (26°15′N 56°13′E) (3.317) from which a light is exhibited, thence:

SSE of Patrick Stewart Bank (26°40′N 56°09′E) (5.120), thence:

NNW of Ra’s Shurayţah (26°23′N 56°23′E) (3.296), thence:

The track then continues through the E bound lane of the Strait of Hormuz TSS.

Anchorages

South-west of Jazīreh-ye Hengām

2.17

1 Qeshm anchorage (26°30′N 55°40′E), SW of Jazīreh-ye Hengām (5.121), has been established by the Iranian authorities for ship to ship transfer or bunkering operations. The anchorage has, for the most part, depths well in excess of 30 m, mud, but there is a least depth of 27 m in its S part.

Chart 2441

Jazīreh-ye Tonb-e Bozorg

2.18

1 **Description.** Jazīreh-ye Tonb-e Bozorg (26°16′N 55°18′E) is 53 m high, brown in colour, level in outline and covered in coarse grass and shrubs; near its NE extremity is a small peaked hummock which is prominent from NE and SW. The E side of the island consists of a low rocky cliff; its SE end is sandy. Near the SW extremity is a military base with a flagstaff and a small boat jetty; an airstrip is situated near its SE end. A bank, with a least depth of 11·8 m over it, extends about 5¼ miles S from the S end of the island; light-buoys (S cardinal) mark its S and SSE edges. Ormonde Rock, which is steep-to, lies near the edge of the coastal bank off the SW side of the island; Clive Rock (3.135), 1 m high, and other dangerous rocks lie between Ormonde Rock and the shore.

2 **Anchorage** may be obtained off the E side of the island in depths of 20 m or more; tidal streams are not so strong here as off the S side of the island where anchorage may also be found in depths of more than 10 m, but the streams set strongly E and W. During periods of strong SE winds a sheltered anchorage may be obtained NW of the island in depths of 15 m or more, 4½ cables offshore, with Jazīreh-ye Tonb-e Bozorg Light (2.15) bearing 098°; due allowance must be made for the tidal stream when approaching this anchorage.

3 **Landing,** during calm weather, may be made at the boat jetty near the SW end of the island; depending on the wind landing can normally be made on a suitable beach on the islands lee side.

Jazīreh-ye Tonb-e Kūchek

2.19

1 **Description.** Jazīreh-ye Nabī Tonb-e Kūchek (Jazīreh-ye Nabī Tanb) (26°14′N 55°09′E) is a small, barren and uninhabited island; on its NW point is a dark hill, with two small peaks rising to 37 m. After rain the island is covered with brilliant green vegetation.

Anchorage may be obtained, in depths of less than 20 m, in most places around the island.

Landing can normally be made on a suitable beach on the islands lee side.

Jazīreh-ye Forūr

2.20

1 **Description.** Jazīreh-ye Forūr (26°18′N 54°31′E) is an island with a rocky coastline, backed by cliffs; dark-coloured volcanic hills rise to a table-topped conical peak, 145 m high, in its NW part. A steep-to reef fringes the island and closer inshore there are several above and below-water rocks; caution is necessary when approaching the island. A military base is situated on its E side.

Anchorage may be obtained off the W side of the island in depths of 15 m or more, rock and sand bottom, with its summit bearing 090° about 1½ miles distant; anchorage may also be obtained by smaller vessels off the S end of Jazīreh-ye Forūr (26°18′N 54°31′E) in depths of more than 30 m, sand and shell bottom.

2 **Landing** in suitable weather can be made on the E part of a steeply shelving beach at the S end of the island.

JAZĪREH-YE FORŪR TO HEAD OF PERSIAN GULF

General information

Charts 2858, 2837, 2887, 2883, 2847, 2884, 2882, 1265

Route

2.21

1 This section describes the route from the W end of Tonb-Forūr TSS to Ra’s ol Moţāf Light-float (27°36′·6N 51°26′·6E), thence NW to Khawr al Kafka (29°36′N 48°52′E) at the head of Persian Gulf, passing SW of Soroosh Oil Terminal (29°01′N 49°27′E). The route from Ra’s ol Moţāf Light-float to Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E) is described from 6.64.

Natural conditions

2.22

1 **Local weather.** On the NE side of Persian Gulf the *shamāl* is the prevailing wind which blows between WNW and NNW. In winter the *shamāl* is often squally and more violent, but of shorter duration than in summer when it is a more persistent NW wind, blowing for several days at a time in June and July, with lulls at night.

Currents have been reported strong and generally irregular off several Iranian coastal areas.

Principal marks

2.23

1 **Major lights:**

Jazīreh-ye Qeys Light (26°31′·0N 53°58′·8E) (6.12).

Jazīreh-ye Lavan E Light (26°48′·2N 53°21′·4E) (6.24).

Jazīreh-ye Lavan W Light (26°48′·5N 53°19′·2E) (6.24).

Al Fārisīyah Light (black metal framework tower, white band; 23 m in height) (27°59′·5N 50°10′·3E) exhibited from close to the centre of Al Fārisīyah (2.27) near a low building and flagstaff.

Other aids to navigation

2.24

1 **Racons:**

Jazīreh-ye Forūr Light (26°18′N 54°31′E).

Jazīreh-ye Qeys Light (26°31′N 53°59′E).

Ra's ol Moţāf Light-float (27°37′N 51°27′E).

Al Fārisīyah Light (27°59′N 50°10′E).

Oilfield North Light-buoy (28°32′N 49°30′E).

Ahmadi Light-buoy (28°56′N 48°53′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

Jazīreh-ye Forūr to Ra's ol Moţāf Light-float

2.25

1 From the inward end of the Tonb-Forūr TSS the track initially leads W for 30 miles to a position S of Jazīreh-ye Qeys (26°32′N 53°58′E), then WNW for 80 miles to a position NNE of Cable Bank Light-float (26°46′·6N 52°31′·9E), it continues WNW for another 77 miles to SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E), passing:

S of Jazīreh-ye Qeys (26°32′N 53°58′E) (6.19), thence:

SSW of Sambarūn Bank (26°34′N 53°43′E) (6.14), thence:

2 SSW of Jazīreh-ye Hendorābī (26°41′N 53°38′E) (6.21), thence:

NNE of an unmarked shoal bank (26°12′N 53°19′E) with a least depth of 10·4 m over it; this bank should be given a wide berth by deep draught vessels.

(Directions for the approach to Jazīreh-ye Lavan Oil Terminal are given at 6.26)

2.26

1 The track continues:

SSW of Jazīreh-ye Lavan (26°49′N 53°16′E) (6.34); submarine oil pipelines connect Jazīreh-ye Lavan Oil Terminal (6.26) with the Sassan, Reshadt and Balal Oilfields which all lie in the central part of Persian Gulf. And:

NNE of Stiffe Bank (26°26′N 53°07′E); Stiffe Bank Light-float (isolated danger; black hull, red band) (reported missing 2002) is moored over the bank.

(Directions for Doha, Mesaieed and Jazīrat Ḩālūl Oil Terminal are given at 7.355)

2 The track continues:

NNE of Cable Bank (26°47′N 52°32′E), a detached shoal area; Cable Bank Light-float (isolated danger) (red hull; 15 m in height) is moored over the central part of the shoal.

(Directions for Ra's Laffān are given at 7.461)

The track continues:

NNE of SPD-6 (26°51′N 52°08′E) and SPD-10, 6 miles ESE, production platforms (lit) standing in the N part of the South Pars Gasfield; note that additional platforms have been established in the gasfield. Submarine gas pipelines extend NNE to land on the Iranian coast near Bandar-e Pars (6.41).

(Directions for Bahrain are given at 8.37, for Ra's Tannūrah at 8.107 and for E channel approach to Ad Dammām at 8.110)

3 The track continues:

SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E). It is recommended that vessels rounding Ra's ol Moţāf (6.40) should remain in depths of more than 20 m; discolouration of the water in this area extends some miles off Ra's ol Moţāf Bank into more considerable depths and is a good guide; it is also recommended that the bank not be approached at night, or in poor visibility, in depths of less than 30 m.

(Directions continue for Khowr-e Mūsá at 6.64, directions for Ra's al Ghār are given at 8.234 and for Al Jubayl at 8.255)

Ra's ol Moţāf Light-float to Soroosh Oil Terminal and Khawr al Kafka

2.27

1 From SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E) the track leads NW for about 135 miles to a position SW of Soroosh Oil Terminal (2.28), it then continues NW for 30 miles to the outer end of Khawr al Kafka (9.81), passing:

NE of Al 'Arabīyah (27°47′N 50°10′E), a sandy islet, 3 m high, on a rock base; reefs fringe the islet for up to 5 cables offshore and a drying patch lies close off its SE side; a small harbour (2.33) is entered from its S side. Al 'Arabīyah Light (red and white metal framework tower) is exhibited from near the head of the harbours E breakwater, a light (white beacon) is also exhibited from the W breakwater. Thence:

2 NE of Al Fārisīyah (28°00′N 50°10′E), a islet, 3 m high, overgrown with coarse grass and brushwood with a beach of white sand; the islet is fringed by a reef and shoal depths extend up to 5 cables from its shores. Al Fārisīyah Light (2.23) is exhibited from near its centre. A small lagoon, protected by a drying reef, lies on its S side. Thence:

NE of a Wellhead Area (28°10′N 49°57′E), thence:

NE of Feridoon Oilfield (28°38′N 49°40′E) which lies within a restricted area; see 8.3. Thence:

NE of Lulu Oilfield (28°44′N 49°25′E) (8.352).

(Directions for Khalīj al Kuwayt are given at 8.352)

3 The track continues:

SW of Soroosh Oil Terminal (29°01′N 49°27′E) (2.28), thence:

SW of a dangerous wreck (29°05′N 49°23′E) lying close outside the W edge of Soroosh Oilfield, thence:

NE of Dorra Oilfield (28°57′N 49°07′E) (8.352), thence:

SW of a dangerous wreck (29°09°N,49°16′E); WR1 Light-buoy (special) is moored on its N side. Thence:

Through to the vicinity of FW Light-buoy (reported missing 2003) (29°20′·6N 49°02′·5E) moored at the outer end of Khawr al Kafka (9.81).

(Directions for Khawr al Kafka are given at 9.87)

Soroosh Oil Terminal

Chart 2882

General information

2.28

1 **Position and function.** Soroosh (Cyrus or Syrus) Oil Terminal (29°01′N 49°27′E) is an Iranian terminal situated within the Soroosh Oilfield, about 30 miles SE of the outer end of Khawr al Kafka (9.81); the terminal services the oilfield and consists of the floating storage unit Soorena.

Approach. The anchorage and pilot boarding position are approached from S.

2 **Traffic.** In 2004, the port was used by one vessel with a dwt of 282 057 tonnes.

Port Authority. Iranian Offshore Oil Company, 339 Shahid Beheshti Avenue, Tehran, Iran.

Limiting conditions

2.29

1 **Controlling depth.** The storage unit is moored in depths of about 40 m.

Density of water. 1·030 g/cm^3.

Maximum size of vessel handled. The storage unit can handle tankers up to 300 000 dwt.

Arrival information

2.30

1 **Port operations.** Vessels are normally berthed in periods of good visibility during daylight; one tug at least in attendance.

Notice of ETA required. Send ETA 96, 72, 48 and 24 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3)*.

Anchorage may be obtained in depths of about 40 m 3 miles SE of the storage unit.

2 **Submarine pipelines** connect the various oilfield production platforms; a submarine oil pipeline extends NW then N from the centre of the field to the Nowrouz Oilfield (29°31′N 49°25′E) (9.12); see 1.17.

Pilotage is compulsory; mooring master boards in the N part of the anchorage area. See *Admiralty List of Radio Signals Volume 6 (3)*.

Tugs available and use compulsory.

Harbour

2.31

1 **General layout.** The floating storage unit is moored to a turret (freely rotating) system in SSW part of the Soroosh Oilfield in which are a number of production platforms (lit); a flare burns from a platform near the centre of the oilfield.

Port services

2.32

1 **Supplies.** No fresh water, stores or bunkers available.

Harbour

Chart 3775

Al ‘Arabīyah

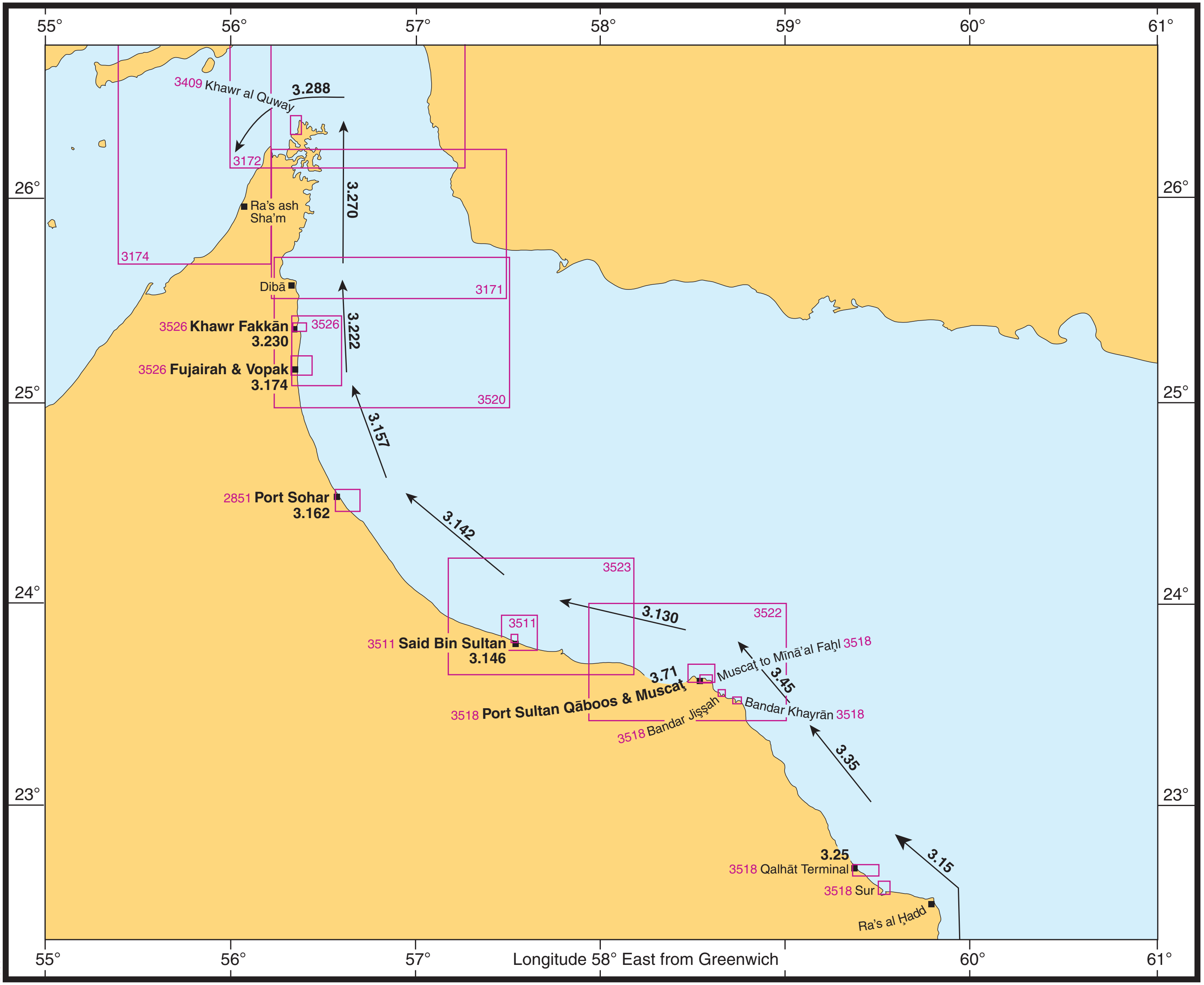
2.33

1 Al ‘Arabīyah harbour is entered from the S side of the islet of Al ‘Arabīyah (2.27) between two breakwaters; it has a least depth of 5·3 m in its entrance. A coastguard station is situated nearby.

NOTES

HYDROGRAPHIC OFFICE

Chapter 3 - Gulf of Oman - southern approach to Persian Gulf - Coasts of Oman, Al Bāţina, Ash Shumaylīyah and Ru'ūs al Jibāl - Ra's al Junayz to Ra's ash Sha'm



CHAPTER 3

GULF OF OMAN — SOUTHERN APPROACH TO PERSIAN GULF — COASTS OF OMAN, AL BĀŢINA, ASH SHUMAYLĪYAH AND RU'ŪS AL JIBĀL — RA'S AL JUNAYZ TO RA'S ASH SHA'M

GENERAL INFORMATION

Charts 2851, 2837

Scope of the chapter

3.1

1 This chapter describes the coast of Oman and the United Arab Emirates from Ra's al Junayz (22°25′N 59°50′E), through Gulf of Oman around the Musandam Peninsula (3.282) to Ra's Ash Sha'm (26°04′N 56°05′E).

The chapter is divided into the following sections:
Ra's al Ḩadd to Muscaţ (3.12).
Khawr Muscaţ, Port Sultan Qāboos and Approaches (3.58).
Muscaţ to Dawḩat Dibā (3.126).
Ru'ūs al Jibāl and Musandam Peninsula (3.136).

2 Also described are the ports of:
Khawr Muscaţ (23°37′N 58°36′E) (3.58).
Port Sultan Qāboos (23°38′N 58°34′E) (3.71).
Said Bin Sultan Naval Base (23°50′N 57°31′E) (3.146).
Port Sohar (24°32′N 56°35′E) (3.162).
Khawr Kalbā (25°02′N 56°22′E) (3.170).
Fujairah (25°11′N 56°22′E) (3.174).
Khawr Fakkān (25°21′N 56°22′E) (3.230).
Ra's Musandam Base (26°22′N 56°22′E) (3.299).

3 And the terminals of:
Qalhāt LNG Terminal (22°40′N 59°25′E) (3.25).
Mīnā' al Faḩl Oil Terminal (23°39′N 58°32′E) (3.98).
Vopak ENOC Tanker Terminal (25°12′N 56°22′E) (3.205).

The route through Gulf of Oman to the Strait of Hormuz Traffic Separation Scheme and the head of Persian Gulf is described in Chapter 2.

Topography

3.2

1 The coast of Arabia S of Ra's al Junayz (22°25′N 59°50′E), the E-most point of Arabia, is described in *NP 64 Red Sea and Gulf of Aden Pilot.*

Depths

3.3

1 Depths in Gulf of Oman are, in general, considerable off the higher sections of the coast, but off the lower lying parts they are not quite so great; the 200 m depth contour lies 1 mile offshore in the vicinity of Ra's al Ḩadd (22°32′N 59°48′E) and 4 miles off Muscaţ (23°36′N 58°36′E) before finally extending NE across the head of Gulf of Oman from a position E of Fujairah (25°11′N 56°22′E) to a position S of Ra's al Kūh (25°48′N 57°18′E) (4.56). Except for the areas around Jazīrat Faḩl (23°41′N 58°30′E) and Jazā'ir ad Daymānīyāt (23°52′N 58°05′E) the approaches to the SW side of Gulf of Oman are clear.

Exercise areas

3.4

1 The Tahr firing practice area lies N and NE of Jazā'ir ad Daymānīyāt (23°52′N 58°05′E); Umm al Fayyārīn practice area mainly E of Jazīrat Umm al Fayyārīn (26°11′N 56°33′E); and Jazīrat al Ghanam practice area N of Jazīrat Umm al Ghanam (26°21′N 56°21′E).

Notice of firing practices and of the areas involved are promulgated by Coastal Warning Messages and by local Notices to Mariners. See *Admiralty List of Radio Signals Volume 3 and Annual Summary of Admiralty Notices to Mariners No 5.*

Fishing

3.5

1 Except in an emergency, commercial vessels are prohibited from entering the various inshore fishing zones shown on the charts.

Hazards

3.6

1 **Visibility.** Poor visibility may be experienced in Gulf of Oman, it is caused by early morning fog, salt haze or, more frequently, dust. Dust haze occurs most frequently between May and August reducing the visibility to between 2 and 6 miles, occasionally to 5 cables, the haze will often occur on the day following a severe dust storm even though the strength of the wind experienced at that time may be considered insufficient to create such a haze.

2 **Ship to ship transfer operations.** Vessels making passage in the vicinity of 25°12′N 56°36′E, the deep sea pilot boarding position (2.2) E of Fujairah, should keep well clear of any large tankers carrying out ship-to-ship cargo transfers. Transferring vessels use this position as a rendezvous point, they operate in pairs and are underway throughout the transfer operation and are difficult to manoeuvre. Such vessels are required to display the appropriate signals. On average six transfer operations take place each month.

Dumping grounds

3.7

1 Disused explosives dumping grounds lie 35 miles E of Fujairah (25°04′N 56°59′E) and 20 miles ENE of Jazīrat Muscaţ (23°38′N 58°36′E).

Weather

3.8

1 During winter the prevailing winds are mainly NW with average speeds of between 7 and 11 kn; calms occur more frequently than in Persian Gulf. In general during spring the winds become more variable with a decrease in NW winds and an corresponding increase in SW winds until by May SW winds predominate. In June N and NW winds are still comparatively frequent, however, by July the prevailing winds are from SE. In September the frequency of SE winds slowly decreases with a corresponding increase in NW winds with average speeds of between 2 and 6 kn.

Flow

3.9

1 **Currents.** The currents throughout Gulf of Oman are variable with rates generally less than ½ kn although they may attain 1½ kn, the most common set is E from February to October and W from November to January.

Regulations

3.10

1 **Pollution.** The government of the United Arab Emirates has increased both air and sea surveillance regarding oil pollution at sea. All vessels navigating through the territorial waters of the United Arab Emirates are required to report any sighting of oil pollution; oil observed surrounding a vessel, which has failed to report its presence, will render that vessel liable to a fine.

The Government of Oman also maintains a strict anti-pollution policy enforced by both air and coastguard patrols. Any vessel found polluting the territorial waters of Oman is liable to severe censure and a fine.

Persian Gulf and Strait of Hormuz Pilots

3.11

1 See 2.2.

RA’S AL JUNAYZ TO MUSCAŢ

GENERAL INFORMATION

Chart 2851

Area covered

3.12

1 This section describes the coastal passage, anchorages and harbours from Ra’s al Junayz (22°25′N 59°50′E) to Muscaţ (23°36′N 58°36′E), 100 miles NW.

It is arranged as follows:

Ra’s al Junayz to Qalhāt (3.15).
Qalhāt to Ra’s Abū Dā‘ūd (3.35).
Ra’s Abū Dā‘ūd to Muscaţ (3.45).

Topography

3.13

1 The coast of Oman N of Ra’s al Junayz (22°25′N 59°50′E) is initially composed of low cliffs; towards Ra’s al Ḩadd (22°32′N 59°48′E) it becomes low and sandy. A coastal range of hills, rising to elevations of between 120 and 150 m, lies NW of Ra’s al Junayz, from seaward this range may be identified by the well defined gap between the S end of the hills and the higher mountains rising farther S. Between Ra’s al Ḩadd and Ra’s al Ḩamrā (23°39′N 58°29′E) the land consists of sandy plains, alternating with promontories of cliffs, all backed by the rugged foothills of the Oman mountains; the line of the mountains closely follows the line of the shore and, in places, approaches to within 20 miles of the coast. Throughout much of this region high rocky cliffs face the sea.

Depths

3.14

1 Depths in the approaches to the coast of Oman between Ra’s al Junayz (22°25′N 59°50′E) and Ra’s al Ḩamrā, 105 miles NW, are deep and the area is free of dangers; the coast is generally steep-to and rocky. There are no reported dangers more than 3 cables from the coast between Ra’s al Ḩadd (22°32′N 59°48′E) and Ra’s al Ayjah, 14½ miles W, however, dangerous rocks and reefs are known to lie within 2 cables of the shore. Coasting vessels are advised to maintain a distance of at least 1 mile offshore, even if clear of fishing activity.

The offshore area between Qalhāt (22°42′N 59°22′E) and Ra’s al Kanādah, 60 miles NW, has not been recently surveyed; see chart source data diagram.

RA’S AL JUNAYZ TO QALHĀT

General information

Chart 2851

Route

3.15

1 From a position in the inshore traffic zone of the Ra’s al Ḩadd Traffic Separation Scheme, E of Ra’s al Junayz (22°25′N 59°50′E), the route leads N for 35 miles, then NW to a position NE of Qalhāt (22°42′N 59°22′E). Directions from Ra’s al Junayz to the head of Persian Gulf are given at 2.12.

Depths

3.16

1 The 200 m depth contour lies less than 3½ miles offshore throughout this area and often much closer. Depths of less than 20 m lie up to 1½ miles E of Ra’s al Ḩadd (22°32′N 59°48′E), however, N of the point there are considerable depths only 5 cables from shore.

Fishing

3.17

1 The area is heavily fished by local craft operating from Şūr and Khawr al Jarāmah with nets extending from close inshore seawards for up to 2 miles. A shallow coastal bank, extending more than 1 mile offshore N of Ra’s al Junayz (22°25′N 59°50′E), is reported to be a very productive fishing ground where many fishing vessels may be encountered; nets are marked by small, inconspicuous, white polystyrene floats; many of the vessels are unlit a sharp lookout should be maintained.

Anchorage

3.18

1 Vessels using any of the anchorages off the coast of Oman between Ra’s al Ḩadd (22°32′N 59°48′E) and Şūr, 15 miles W, should always be prepared for a sudden shift in the wind to N.

Traffic separation scheme

3.19

1 The Ra’s al Ḩadd TSS has been established between Ra’s al Junayz (22°26′N 59°50′E) and Ra’s al Ḩadd, 7 miles NNW, for shipping entering or leaving the S part of Gulf of Oman. An Inshore Traffic Zone extending between 7 miles and 8 miles offshore has also been established.

The traffic separation scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See the *Annual Summary of Admiralty Notices to Mariners.*

Natural conditions

3.20

1 **Currents.** Off Ra's al Ḩadd (22°32′N 59°48′E) currents are both strong and variable and are much influenced by the prevailing wind. Occasionally during the SW Monsoon, while the current sets N along the coast S of Ra's al Ḩadd, it is setting SE and E along the coast WNW of the point. Off Ra's al Ḩadd these two currents combine and turn NE at a rate of about 1 kn, this rate can then be increased by the out-going tidal stream setting along the SW shore of Gulf of Oman.

2 Astronomically generated tidal streams from Şūr to Ra's ash Shajar (22°58′N 59°11′E) are generally weak, less than ½ kn at springs; the streams are diurnal in nature and run parallel to the coast, superimposed on them is a wind generated current which generally runs SE along the coast at ½ kn from October to April, and at ¾ kn from May to September. Complexities in the current generating system causes eddies, of up to 1 kn, to set NW along the coast counter to the prevailing offshore current. These counter currents may persist for several days and are unpredictable; observation of moored objects should determine the local flow.

3 **Red Tide.** The phenomenon of the red tide, caused by organisms in the water, can occur in the vicinity of Şūr (22°35′N 59°32′E) from February to April, they collect in dense orange patches in various bays and inlets; they and should be avoided by bathers.

Principal marks

3.21

1 **Landmarks:**

Jabal Hulayyāt (22°36′·3N 59°23′·1E) stands at the SE end of Jabal Banī Jābir, a precipitous range of mountains of regular outline rising from the coast to more than 2000 m; Jabal Khadar, 11 miles WSW, stands at the S end of this range.

Jabal Khamīs (22°17′·9N 59°25′·1E) is a dark rugged peak rising 17 miles SSW of Şūr; Jabal Ja'alān, 6½ miles SSW, shows up well when seen clear of Jabal Khamīs.

3.22

1 **Major light:**

Ra's al Ḩadd Light (white metal framework tower, red bands; 28 m high) (22°32′·0N 59°47′·9E) exhibited from the E side of Ra's al Ḩadd (3.24).

Other aid to navigation

3.23

1 **Racon:**

Ra's al Ḩadd (22°32′N 59°48′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from Red Sea and Gulf of Aden Pilot)

3.24

1 From a position E of Ra's al Junayz (22°25′N 59°50′E), in the S part of the inshore traffic zone of the Ra's al Ḩadd TSS, the track leads N, then NW, passing:

E of a dangerous wreck (position approximate) (22°27′N 59°50′E) lying close N of Ra's al Junayz, a low cliff which forms the E extremity of Arabia, thence:

NE of Ra's al Ḩadd (22°32′N 59°48′E), the S-most point of Gulf of Oman, from which a light (3.22) is exhibited. The point is low and sandy and not easily identified, the coast from 3 miles S of the point to 2 miles W is also low and sandy. A fort with 3 conspicuous towers, surrounded by a village and date palms, stands 1 mile SW of its N extremity. Thence:

2 NE of the entrance to Khawr al Jarāmah (22°31′N 59°44′E) (3.33), thence:

NE of Şūr (22°35′N 59°32′E) (3.34), thence:

NE of Qalhāt LNG Terminal (22°40′N 59°25′E) (3.25), thence:

NE of Qalhāt (22°42′N 59°22′E) (3.39).

(Directions continue at 3.38)

Qalhāt LNG Terminal

Charts 2851, 3518 plan of Qalhāt LNG Terminal

General information

3.25

1 **Position and function.** Qalhāt LNG Terminal (22°40′N 59°25′E) is a natural gas facility situated 75 miles SE of Muscaţ; the terminal handles both LNG and NGL (condensate).

Port limits. The port limits are a restricted area in which navigation is restricted to those vessels proceeding to and from the terminal; it is under the control of the terminal authorities.

2 **Approach.** The terminal is approached from NE from the vicinity of the pilot boarding position.

Traffic. In 2004 the port was used by 123 vessels with a total dwt of 7 555 384 tonnes.

Limiting conditions

3.26

1 **Mean tidal levels.** Mean spring range about 1·6 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled. The LNG berth is suitable for use by vessels up to a maximum length of 310 m, maximum draught of 12·1 m and up to 125 000 dwt. The MOF (Condensate) berth is suitable for use by vessels up to a maximum length of 140 m, maximum draught of 7·7 m and 13 000 dwt. An under-keel clearance of 2·0 m is required at all times.

Arrival information

3.27

1 **Port operations.** Berthing and unberthing operations are carried out 24 hours; boats are not used for handling mooring lines, but messengers are run from the shore.

Notice of ETA. Vessels should give notice of ETA on departure from their previous discharge port, then 96 hours, 48 hours, 24 hours in advance and 5 hours before arrival to confirm ETA. Any alteration greater than 12 hours should be advised. See *Admiralty List of Radio Signals Volume 6 (3).*

2 **Outer anchorage.** An anchorage area lies 4 miles ESE of the LNG Jetty head, mud, sand and shingle bottom; permission required from the terminal superintendent.

Submarine pipeline. A submarine pipeline connects the WNW end of LNG Jetty with the shore; see 1.17.

Pilotage is compulsory; the pilot boards in the vicinity of 22°43′·0N 59°27′·5E, 4 miles NE of the terminal.

Tugs are available.

Harbour

3.28

1 **General layout.** The terminal is situated in a semi-sheltered bay, open to the NE, and consists of the LNG Jetty (22°39′·9N 59°24′·7E) and the MOF (Condensate) Jetty (5 cables WNW); light-buoys (N cardinal) are moored 1 cable WNW and ESE of the outer mooring dolphins of the LNG Jetty.

Submarine outfall pipes are laid from close NW of the root of the MOF Jetty and SE of the LNG Jetty, light-buoys (pillar, special) mark their seaward ends; a buoy (spherical, special) is moored close E of the outer end of the SE outfall pipe.

2 **Development.** Works are in progress (2005) 1½ miles SE of the terminal.

Hazard. The waters in the approaches and adjacent to the terminal are widely frequented by local fishermen using drift nets in excess of 1000 m; fishing is usually undertaken during the hours of darkness. Because of this fishing activity the approach to, and departure from, the port should be carried out with extreme caution, preferably maintaining a SW heading during the approach and a NE heading on departure until well clear of the coast; see 3.17

3 **Currents** are mainly generated by the tidal stream, but these can be influenced by the wind if blowing from the same direction for an extended period.

Tidal streams run parallel to the line of the berths, NW with the in-going stream, and SE with the out-going stream; the rate rarely exceeds 0·4 kn.

Winds. The local winds are predominantly monsoonal. During the summer months between June and September the terminal is sheltered from the effects of the strong SW Monsoon by the mountain ranges S, however it is exposed to the NE Monsoon with onshore winds blowing from NW through N to NE for the remainder of the year.

4 **Principal mark:**

Qalhāt LNG Terminal Flare Stack Light (aero light on a grey stack, 103 m high) (22°39′·6N 59°24′·7) stands close SE of the root of LNG Jetty.

Directions for entering harbour

3.29

1 The terminal is approached from the vicinity of the pilot boarding position, passing between the Perimeter Light-buoys (pillar, special) to either the Qalhāt LNG berth or the MOF (Condensate) berth.

Useful marks:

Red obstruction lights (50 m high) (22°39′·8N 59°24′·3E) are exhibited from two tanks which stand close SSW of the root of the LNG Jetty; further obstruction lights are exhibited from flare stacks and a radio tower farther SSW.

2 Lights are exhibited from the on shore security markers (grey beacons) (22°40′·1N 59°23′·9E and 1 mile ESE).

Berths

3.30

1 The LNG facility, which only handles liquefied natural gas, is a T shaped jetty extending 410 m NNE from the shore with berthing and mooring dolphins at its head; lights are exhibited from outer mooring dolphins; a submarine pipeline is laid SSW from the WNW dolphin to the shore.

2 The MOF (Condensate) facility, which handles natural gas liquids (NGL) condensate, is an L shaped jetty extending 360 m NNE from the shore with a main berthing head aligned WNW and a lighter pier extension ESE; lights (green beacons) are exhibited from the WNW end of the berthing head and from the pier extension (1 cable ESE).

Port services

3.31

1 **Facilities:** There are no facilities for the reception of oily wastes.

Supplies: Neither fresh water nor fuel oils are available.

Communications. Seeb International Airport (3.139) is 370 km distant.

Anchorages and harbours

Chart 2851

Khawr al Hajar

3.32

1 **Description.** Khawr al Hajar (22°32′N 59°46′E) (not charted) is a drying tidal lagoon entered close W of Ra’s al Ḩadd between Ra’s al Hammah and Ra’s al Hayyah; the lagoon affords shelter to local fishing boats. A desalination plant is situated on the shore of the lagoon SSE of Ra’s al Hayyah; a detached ruined round tower stands W of Ra’s al Ḩadd.

Tidal streams near the entrance to Khawr al Hajar set E with the out-going stream and W with the in-going; the out-going stream is weak, but the in-going can attain a rate of about 1½ kn.

2 **Anchorage** may be obtained 2½ cables N of the entrance in depths of between 20 and 22 m, sand and mud. Anchorage may also be obtained between the entrance and Khawr al Jarāmah, 2 miles W; also E of Ra’s al Ḩadd between 5 and 8 cables offshore in depths of between 14 and 18 m, coral, however, depths decrease rapidly within the 18 m contour and the bottom then becomes clearly visible. During the SW Monsoon the best berths may be off the entrances Khawr al Hajar and Khawr al Jarāmah.

Khawr al Jarāmah

3.33

1 **Description.** Khawr al Jarāmah (22°31′N 59°44′E) is a shallow tidal lagoon entered through a tortuous channel, about 1 mile in length and between 55 and 270 m wide. The lagoon affords excellent shelter though bends in the entrance channel are somewhat sharp, the lagoon is accessible to vessels with draughts of less than 4·5 m.

Topography. The coast between Khawr al Jarāmah and Khawr al Hajar (3.32) is fronted by 10 to 15 m high light brown cliffs at the foot of which lie boulders and sections of fallen cliff. The shores of the lagoon are surrounded, for the most part, by cliffs between 30 and 60 m high; at its S end is a low sandy beach on which a few trees grow; an isolated flat-topped hill forms a prominent feature.

2 **Approach.** The isolated flat-topped hill on the S side of the inlet, bearing 176°, leads towards the entrance. It is reported to make a good head mark, however, it should not be confused with a pinnacle-shaped hill with a flat summit standing a few miles W of it.

Local weather. It has been reported that the climate within Khawr al Jarāmah during the SW Monsoon (May to September) is far better than within Persian Gulf, a monsoon breeze blows almost constantly, temperature and humidity are moderate, and the nights cool.

3 **Directions.** It is recommended that vessels larger than 1000 tonnes and without any local knowledge should buoy the shoals in the channel before attempting entry, timing their entry to commence at the very beginning of the out-going stream which occurs shortly after local high water. At other times eddies in the bends of the channel render steering difficult, particularly as the winds in the

channel are unreliable in direction and often gusty. Vessels with a draught greater than 4 m should only enter the inlet if the narrows are calm and the shoal patches have been buoyed. A larger vessel found it impracticable to pass E of a shoal 2½ cables within the entrance and recommended that the inlet should only be entered when the height of the tide permitted a track through the centre of the channel to be maintained.

4 **Tidal streams** through the entrance attain a rate of about 2 kn.

Anchorage can be obtained 5 cables offshore, N of the entrance, in depths of between 18 and 20 m, sand and mud; see 3.18. A good, well sheltered, inner anchorage may be obtained, in depths of between 5 and 8 m, between 2 cables S and 5 cables SW of an islet at the S end of the channel.

Charts 2851, 3518 plan of Şūr

Şūr

3.34

1 **General information.** Şūr (22°35′N 59°32′E) lies 15 miles W of Ra’s al Ḩadd near the mouth of Şūr Lagoon; it has become the principal coastal town of the E Region of Oman. Al Ayjah (‘Ayqā) a boat building and fishing village lies on the E side of the entrance to the lagoon.

Topography. Şūr consists predominantly of low white houses on a gravel plane at the foothills of Jabal Hulayyāt (3.21). Ra’s Sharḩ (22°34′N 59°39′E) (not charted) is a rather inconspicuous, slightly projecting, point 6 miles E of Şūr on the W side of a sandy beach; the village of Shiya fronts the beach from where a ridge of low broken hills with cliffs, interrupted in places by sandy beaches, extends W to Şūr. From Ra’s Jimilah (22°34′N 59°32′E), the W entrance point to Şūr Lagoon, to Ra’s Abū Dā‘ūd, 56 miles NW, the coast is bordered mostly by low cliffs.

2 **Mean tidal levels.** Mean spring range about 1·6 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Anchorage can be obtained off Şūr in a depth of 15 m 5 cables N of Ra’s al Ayjah (22°34′·3N 59°32′·4E), sand. Jabal Khamīs (22°18′N 59°25′E) (3.21) bearing 212°, ahead, provides a lead to the anchorage. It is inadvisable to anchor any closer than 5 cables to shore as a heavy swell can rise very quickly.

Landing may be effected in a cove close S of Ra’s Jimilah where a projecting ledge of rock permits a boat to lie alongside in calm weather.

3 **Harbour.** Şūr Fishing Harbour, entered from SE, lies on the NE side of the town within protective breakwaters; lights (lateral) are exhibited from the breakwater heads.

Landmarks:

Hişār Sunaysilah (Sunaysilah Fort) (22°34′·8N 59°30′·2E) is a large light-coloured building with a round tower at each corner standing on high ground on the W side of Şūr, the fort is visible for a distance of 10 miles from seaward.

A conspicuous white building (22°34′·6N 59°30′·9E) stands close to a ridge near the centre of the town.

A conspicuous television tower (red obstruction lights, 142 m high) (22°34′·5N 59°30′·3E) stands on a hill near the centre of the town.

4 **Approach.** The harbour may be approached from a position NE of Ra’s al Ayjah.

Useful mark:

Şūr Light (22°34′·2N 59°32′·4E) exhibited from Ra’s al Ayjah the N entrance point to Şūr Lagoon.

Communications. There is a small commercial airport with daily flights to Seeb International Airport (3.139).

QALHĀT TO RA’S ABŪ DĀ‘ŪD

General information

Chart 2851

Route

3.35

1 From a position NE of Qalhāt (22°42′N 59°22′E) the route leads NW for 43 miles to a position NE of Ra’s Abū Dā‘ūd (23°19′N 58°55′E).

Topography

3.36

1 See 3.13.

Principal marks

3.37

1 **Landmarks:**

Devil’s Gap (23°05′·3N 58°47′·1E) is the entrance to a great valley, 12 miles inland, which trends SW. Its S side is formed by a large bluff situated at the NW end of Jabal Banī Jābir (3.21); its N side by a stepped bluff at the SE end of the Jabal Aswad range which presents an even crest except near its SE end where Jabal Abyaḑ (23°10′·4N 58°40′·3E) forms a small peak, 2050 m high. Devil’s Gap is prominent between the bearings 216° and 285°; when bearing about 250° it is quite open and very remarkable. Sometimes, when the mountain tops on either side of the gap are enveloped in continuous clouds, a clear sky beyond may be seen through the gap. In the evening this presents a remarkable spectacle. Occasionally in winter very heavy squalls run through the valley.

2 Jabal Abū Dā‘ūd (23°19′·2N 58°50′·3E), a detached mountain of irregular outline, deeply furrowed and light in colour, which rises abruptly from the coast in the vicinity of Ra’s Abū Dā‘ūd (3.38). When seen from a distance, bearing about 312°, the mountain has the appearance of an island, steep on its seaward side but with a long slope W. A wide valley lies between Jabal Abū Dā‘ūd and the mountains of which it forms the summit; the foot of Jabal Abū Dā‘ūd extends 8 miles along the coast.

Directions

(continued from 3.24)

3.38

1 From a position NE of Qalhāt (22°42N 59°22′E) the track leads NW, passing:

NW of Ţīwi (22°50′N 59°15′E) (3.40), thence:

NE of Ra’s ash Shajar (22°58′N 59°11′E) which is low and sandy, and only well defined when close-to; a shoal bank extends 8 cables off the point. The coastal mountains of Jabal Banī Jābir (3.21) recede from the coast for a distance of 3½ miles on either side of Ra’s ash Shajar. Thence:

2 NW of Ḑibāb (23°05′N 59°03′E) (3.42), thence:

NE of Ra’s Abū Dā‘ūd (23°19′N 58°55′E), a steep and rocky headland which is broken into several points making it difficult to identify at a distance. A rocky islet, 30 m high, stands 1½ miles N of the point; the coast 4 miles NW of the headland is bordered by cliffs from which Jabal Abū Dā‘ūd (3.49) rises abruptly.

(Directions continue at 3.51)

Anchorages and harbours

Qalhāt

3.39

1 **Description.** Qalhāt (22°42′N 59°22′E) is a small agricultural and fishing village, 3 miles NW of Qalhāt LNG Terminal (3.25), comprising white houses on the banks of Wādī Hilm, a large impressive gorge. The village can be identified by a distinct dark grove of date palms and by a peak in the coastal range which stands 1 mile SE of the village. A prominent tower and two smaller towers stand within the village, but the village can still easily be mistaken for Ţīwi (3.40). A spit of sand and gravel has been built up at the mouth of Wādī Hilm which occasionally flows into the sea following heavy rains in the coastal mountains; a semi-tidal, but non-navigable, lagoon lies at the seaward end of the spit.

2 **Anchorage** can be obtained 3½ cables offshore, off the S side of the spit, in an apparently good holding ground in a depth of 30 m, however, depths shoal rapidly towards the coast and increase rapidly to seaward, the 200 m depth contour being just 1 mile offshore. The vicinity of the spit should be avoided as foul ground appears to extend some distance from it; reefs, with depths of less than 4 m, lie within 2 cables of the coast.

Landing may be effected at Qalhāt on a shingle beach S of the spit, but large swells build up rapidly close inshore.

Ţīwi

3.40

1 **Description.** Ţīwi (22°50′N 59°15′E), 10 miles NW of Qalhāt (3.39), is a village and a date grove which, over time, has grown together with the village of Ghayl ash Shāb to form a large settlement of predominantly white houses. The settlement stretches along the coast from the N side of Wādī Ţīwi to the mouth of Wādī ash Shāb, considered to be the most dramatic and beautiful wādī in this region. The village can easily be mistaken for Qalhāt. A white minaret and a blue domed mosque are conspicuous, as is the flagstaff on the round brown fort at Ghayl ash Shāb. Rocks and reefs lie within 2 cables of the coast in this area, but it is free of dangers more than 3 cables offshore; a stranded wreck lies on an unnamed point 5 miles SE of the village.

2 **Anchorage** can be obtained close to the beach at Ţīwi and N of a small spit, in a depth of 16·5 m; however, the 200 m depth contour lies just 5 cables offshore. Anchorage has also been obtained 4 cables off Ghayl ash Shāb in depths of 25 m, sand over rock; the minaret at Ţīwi was used as a head mark, 174°, anchoring when the flagstaff of the brown fort at Ghayl ash Shāb was bearing 230°. Anchorage may also be obtained on a shoal bank which extends 8 cables offshore from Ra's ash Shajar (22°58′N 59°11′E), in a depth of 16 m, rock and sand, with Ra's ash Shajar bearing 308°, and a conspicuous minaret in Fins bearing 175°. Vessels must be prepared to depart these anchorages on the approach of the *shamāl*; see 3.18.

Bimmah

3.41

1 **Description.** Bimmah (23°00′N 59°08′E) is a small fishing village of uniformly buff coloured houses divided by a wādī bed.

Anchorage can be obtained 4½ cables offshore in a depth of 20 m, sand over rock, with Ra's ash Shajar (22°58′N 59°11′E) bearing 128°.

Ḑibāb

3.42

1 **Description.** Ḑibāb (23°05′N 59°03′E) is a small fishing village, marked by a grove of date palms, 3 miles WNW of Ra's ash Shajar (3.38).

Anchorage can be obtained 5½ cables offshore in depths of 10 m, sand.

Daghmar

3.43

1 **Description.** Daghmar (23°13′N 58°58′E) is a fishing village standing on a prominent hill within a cultivated delta area formed by the outflow of Wādī Dayqah. A sandy spit is marked by breakers; sand bars, with depths of less than 2 m over them, lie up to 3 cables off this spit. For a distance of 3 miles N the seabed is foul up to a distance of 5 cables offshore.

2 **Landmarks:**

The ruins of a prominent brown fort, standing on a small mound, is visible above the trees inland.

A conspicuous radio tower (red and white, 171 m high) (23°11′·4N 58°56′·5E) stands 2 miles inland from the coast.

Anchorage can be obtained in the vicinity of 23°10′·3N 59°00′·3E, about 6 cables off the coast, in a depth of 16 m, sand.

Quryāt

3.44

1 **Description** Quryāt (23°16′N 58°55′E) is an expanding fishing and agricultural town with a population of about 30 000, it lies 3 miles S of Ra's Abū Dā'ūd at the foot of Jabal Abū Dā'ūd (3.38) between two shallow creeks leading to inland lagoons lined by mangroves. A rocky islet, 15 m high, lies close off the mouth of one of the creeks on which stands a 6 m high, white square watch tower and provides a good mark. A wreck NE of the town, with a least depth over it of 8·2 m, lies 2½ miles SSE of Ra's Abū Dā'ūd. Two breakwaters and a groyne form the harbour; lights (lateral, metal posts, 3 m high) are exhibited from both breakwater heads. A light (white diamond on metal post, 3 m high) is also exhibited from the groyne close N of the breakwaters.

2 **Anchorage** may be obtained 1¼ miles offshore, in a depth of 22 m, sand, with the rocky islet bearing 227°, and Ra's Abū Dā'ūd (23°19′N 58°55′E) bearing 337°. Anchorage may also be obtained between Quryāt and Ra's Abū Dā'ūd, 2½ cables offshore, in depths of between 8 and 9 m.

RA'S ABŪ DĀ'ŪD TO MUSCAŢ

General information

Charts 2851, 3522

Route

3.45

1 From a position NE of Ra's Abū Dā'ūd (23°19′N 58°55′E) the coastal route leads NW for 31 miles to a position NE of Faḩl Fairway Light-buoy (23°41′N 58°32′E).

Topography

3.46

1 About 4 miles NW of Ra's Abū Dā'ūd (23°19′N 58°55′E) the coast becomes low and sandy as far as As Sīfah (23°26′N 58°47′E), towards Ra's al Ḩamrā, 20 miles NW, the coast is almost entirely bordered by cliffs

alternating between small bays, inlets and coves; all backed by a range of rugged precipitous hills. Between Bandar Khayrān (23°31′N 58°44′E) and Bandar Jişşah, 5 miles WNW, the coast is rocky consisting of light, sand coloured cliffs cut by narrow inlets and wādīs. From Bandar Jişşah to Muscaţ, 5 miles NW, the coast is backed by dark cliffs and the mountains of the Jabal Bardah (3.51) range, which rise to elevations of 400 m within 2 miles of the coast, meeting the shore in a number of small rocky bays. The dark mountains contrast sharply with the lighter sandstone of the cliffs around Bandar Jişşah which end near the fishing village of Qantab (23°34′N 58°38′E).

Prohibited area

3.47

1 An area, in which fishing is prohibited, extends S along the coast from a position on the E side of Jazīrat Muscaţ (23°38′N 58°36′E) to close W of Al Bustān, 3 miles S; the area is marked on it's seaward side by light-buoys (pillar, special).

Measured distance

3.48

1 A measured distance of 1854·9 m (6086 ft) lies in the approaches to Bandar Jişşah (23°33′N 58°39′E) (3.53) with a track aligned 110°–290°, its E limits are marked by a pair of beacons (black, triangular topmarks) standing on the islet of Al Brayik (3.53), and the W limits by similar beacons standing close off Al Aylmi (23°34′·0N 58°38′·4E) and 3 cables SSW.

Principal marks

3.49

1 **Landmarks:**

See 3.37.

Other aid to navigation

3.50

1 **Racon:**

Jazīrat Muscaţ (23°37′·6N 58°35′·8E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.38)

3.51

1 From a position NE of Ra's Abū Dā'ūd (23°19′N 58°55′E) the track leads NW, passing:

NE of As Sīfah (23°26′·0N 58°47′·0E), a small village on the coast; a square tower, 18 m high, stands on a mound near the village and a small fort stands close NW. Thence:

NE of Khayşat ash Shaykh (23°30′·6N 58°45′·8E). A wreck (position approximate), with a least depth over it of 5 m, lies 5 cables NW of the headland, and is used as a dive site; a shoal depth of 1·3 m, marked by a buoy (lateral), lies close NW. Thence:

2 NE of Ra's al Khayrān (23°32′N 58°45′E), a light coloured vertical cliff, 18 m high; some lightly coloured hills lie within the point which forms the E entrance to Bandar Khayrān (3.52). Thence:

NE of Ra's al Kanādah (23°37′N 58°36′E), a dark, 76 m high, cliff; Jabal Bardah stands 2 miles SW of Ra's al Kanādah in two sharp points forming the summit of a very rugged dark range of mountains. Pillar Rock, 26 m high, stands 1 cable N of the point; a shoal bank, with a least depth of 3 m, extends N from the rock. Thence:

3 NE of Jazīrat Muscaţ (Al Jazīrah) (23°37′N 58°36′E), a dark and steep sided island formed by two ridges lying in a N/S direction and separated by a valley; the island forms the E side of Khawr Muscaţ (3.58). Muscaţ Light (white square tower aluminium lantern, 3 m high) (23°37′·6N 58°35′·8E) is exhibited fom the N summit. A round tower, 10 m high, stands on the NW point of the island close W of the light; Burj Şīrāh, a second tower, 65 m high with a flagstaff, stands SE of the light. Thence:

4 NE of Faḩl Fairway Light-buoy (safe water) (23°41′N 58°32′E) moored in the approaches to Port Sultan Qāboos (3.71).

(Directions continue at 3.134)

Anchorages and harbours

Chart 3518 plan of Bandar Khayrān

Bandar Khayrān

3.52

1 **Description.** Bandar Khayrān (23°31′N 58°44′E) is encumbered in its entrance by Western Island, a steep-to and rocky island which may be passed either side; the inlet is mainly frequented by fishing boats. At its head lies a swamp on the E of which are mangroves; further mangroves grow on the S side of Jabal Ghubat al' Juzayirah, the larger of two islets. Sahil al M'hab is a village at the head of the swamp within a large grove of date palms.

2 **Local weather.** The winds in the vicinity of Bandar Khayrān are unpredictable, especially in the W entrance; violent gusts may be expected during a strong *shamāl*.

Hazard. Care should be taken when navigating in the approaches and entry to Bandar Khayrān due to the presence of fishing stakes whose positions are subject to frequent movement; a fish farm is situated in Al Baab al Waaseh off the NW side of Jazīrat Dqayiq at Turook.

3 **Entry.** Bandar Khayrān is entered from E through Al Baab al Waaseh; the 60 m wide inner part of the channel has a least depth in the fairway of 5·8 m and leads between S side of Western Island and the mainland coast. From W the inlet is entered through Al Baab a' Dhayiq, the channel is narrow with a least depth in the fairway of 12·1 m; the outer end of the W entrance may be identified by a small beacon (slatted wooden tripod, triangular topmark; 3 m high) on the NW corner of Western Island; a white cairn stands close S. A near land locked bay at the head of the inlet is entered passing W of the 17 m high islet, from which dangerous rocks extend W; and SW of Ra's al Masah, a notice board stands close E of the point.

4 **Side channel.** Jazīrat Dqayiq at Turook (23°31′·2N 58°44′·7E) lies close off the mainland shore on the S side of Al Baab al Waaseh; its similarity of appearance and closeness to the mainland makes it not easily identified. The channel between the island and the mainland is narrow, tortuous and dries; many dangerous and drying rocks lie within. A small islet, 14 m high, lies off the N end the island; Mushroom Rock lies off the SW side, near the centre of the narrow channel.

Chart 3518 plan of Bandar Jişşah

Bandar Jişşah

3.53

1 **Description.** Bandar Jişşah (23°33′N 58°39′E) is entered between Al Brayik, an islet close off its E entrance point, and Al Jazair, a precipitous, light-coloured island off its W. From seaward, at a distance of more than 1 mile or more, the bay is difficult to identify, the best guide is the very light colour of the cliffs in the vicinity and its position in relation to Hassa Shaikh (23°32′·4N 58°40′·4E), a prominent black rock, 25 m high, which stands, along with a smaller rock, 15 m high, on the foreshore of the coastal part of the village of Yiţī. Al Brayik, when approached from either direction along the coast, presents a remarkable likeness to a black sheep's head. The island has a natural arch 2 cables from its outer end, but passage through this arch is only possible by boat. A sandy beach, joining the island with the mainland 3 cables SE of the arch, affords a good landing for boats. Works are in progress (2003) on the E side of the island; a light-buoy (special) is moored about 1¼ cables NNE of the island.

2 **Hazard.** Particular care must be taken when navigating in the approaches and on entry to Bandar Jişşah, due to the presence of fishing stakes whose positions are subject to frequent movement.

Measured distance. See 3.48.

Natural phenomenon. Fresh water springs, which can cause false readings from echo sounders, flow into the seabed on the W side of Bandar Jişşah, and between Al Jazair (23°33′·7N 58°38′·8E) and Al Aylmi (5 cables NW).

3 **Anchorage.** Bandar Jişşah affords anchorage in depths of between 7 and 13 m; note, a steep-to rock, with a least depth over it of 4·6 m, lies close NE of a rocky shoal extending NNE from the steep point dividing the head of the bay.

Landing. The beach fronting the ruined village on the W shore of the bay offers a good landing for boats and is a popular recreational site. The National Diving Centre of Oman is situated in a cove at the head of the inlet and a careful watch for divers and associated vessels should be kept.

Chart 3522

Al Bustān

3.54

1 **Description.** Al Bustān (23°35′N 58°36′E) is a modern village within a small bay 1 mile WNW of Bandar Jişşah. A plantation of date palms separates the village from a conspicuous hotel, with a gold coloured dome, standing close to the coast between the villages of Qantab and Al Bustān. The E approach to the bay is encumbered by rocks up to 4 cables offshore, a series of rocky reefs and shoals lie inshore between Al Bustān and Ra's al Kanādah, 2 miles N.

Anchorage can be obtained off Al Bustān in a depth of 11 m, clear of the pillar buoys marking the prohibited area (3.47).

Bandar al Rowdha Marina

3.55

1 **Description.** Bandar al Rowdha Marina (23°35′·1N 58°35′·5E) lies close S of Masayḩ Bay within a small harbour protected by a short N breakwater and a longer S; lights (lateral) are exhibited from their heads. Masayḩ (23°35′N 58°36′E) is a small bay close N of the marina from which two small piers extend E. Jazīrat Şīrah a pyramidal rock, 15 m high, stands in the S approach to the bay.

Sidāb

3.56

1 **Description.** Sidāb (23°36′N 58°35′E) is a fishing village 7 cables SSW of Ra's al Kanādah (3.51) at the head of the small bay of Bandar Sidāb. A Royal Oman Coastguard maintenance base, protected by a small breakwater, is based within the bay; a light (white metal post, 3 m high) (23°36′·0N 58°36′·0E) is exhibited from the breakwater head; a second light (white metal post, 3 m high) is exhibited from the shiplift facility within the yard.

KHAWR MUSCAŢ (MASQAŢ), PORT SULTAN QĀBOOS AND APPROACHES

Chart 3518

Area covered

3.57

1 This section describes the ports and terminals situated between Ra's Muscaţ (23°38′N 58°36′E) and Ra's al Abyaḑ (23°39′N 58°30′E), 5¼ miles W.

It is arranged as follows:

Khawr Muscaţ (3.58).
Port Sultan Qāboos (3.71).
Mīnā' al Faḩl Oil Terminal (3.98).

KHAWR MUSCAŢ

General information

Chart 3518 plan of Port Sultan Qāboos and Muscaţ

Position

3.58

1 Khawr Muscaţ on the N coast of Oman is entered between Ra's Muscaţ (23°38′N 58°36′E) and Ra's Kalbūh, 5½ cables WSW.

Topography

3.59

1 The head of Khawr Muscaţ was formerly the old port of Muscaţ and is dominated by the Al 'Alam Palace, and the forts of Hoşn (Hişn) Mīrānī and Qala't Jalālī (3.65). The area is backed by dark and rugged mountainous terrain, intersected by steep wadis which forms the foothills of the the W mountain range; Muscaţ means place of falling down indicating the place where mountains fall into the sea. The picturesque old town of Muscaţ stands behind the Al 'Alam Palace and is enclosed E and partly S by precipitous hills; a wall S and W completes its protection. Beyond the wall a new city now encircles the old town and has expanded to occupy all the land capable of development between the coast and hills farther inland. The old town, and other towns immediately NW, do not show up well under the dark hills and are only visible from seaward when the coves, at the heads of which they are situated, are open.

Limiting conditions

Mean tidal levels

3.60

1 Mean spring range about 1·7 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Prohibited area

3.61

1 Entry to Khawr Muscaţ is prohibited to unauthorised vessels.

Home Contents Index

Local weather

3.62

1 The bay is open to the *shamāl* which, in this vicinity, blows from WNW, and to the *nashī* which produces a heavy swell in the inlet from which there is little or no shelter.

Harbour

General layout

3.63

1 From its entrance Khawr Muscaţ extends 7 cables SSE to the conspicuous fort of Qala't Jalālī; the island of Jazīrat Muscaţ forms the E side of the harbour. A Royal Oman Naval Base is situated on the W side of the harbour.

Current

3.64

1 Currents run strongly off the entrance to Khawr Muscaţ especially between the months of December and March.

Principal marks

3.65

1 **Landmarks:**

Şīrat al Gharbiyah (23°37′·3N 58°35′·5E) is a fort standing on a promontory on the W side of Khawr Muscaţ; the fort and promontory are reported to be radar conspicuous. A small stranded wreck lies on a reef close W of the promontory.

Al ‘Alam Palace (23°37′·0N 58°35′·7E) is an imposing gold and blue building and the largest structure on the shore of Khawr Muscaţ. It has a flat roof, surmounted by a flagstaff from which a red obstruction light is exhibited; the palace is illuminated at night; lights are exhibited from a small jetty close N of the palace.

2 Qala't Jalālī (23°37′·0N 58°35′·9E) is a fort in the SE corner of Khawr Muscaţ, E of the Al ‘Alam Palace. The fort consists of two tiers of embrasures, with a tower in its N part, standing on a small, 46 m high, hill. The fort has been restored and is conspicuous, particularly in the morning sun with the dark hill behind it; the fort is illuminated at night.

Hoşn Mīrānī (Hişn Mīrānī) (23°37′·0N 58°35′·6E) is a conspicuous fort, close NW of Al ‘Alam Palace, with three towers and a battery sited on the shore below; at night the fort is illuminated.

3 **Light:**

Muscaţ Light (23°37′·6N 58°35′·8E) (3.51).

Directions for entering harbour

3.66

1 From the vicinity of the pilot boarding position (3.85) the track leads SE, passing (with reference to Muscaţ Light (23°37′·6N 58°35′·8E)):

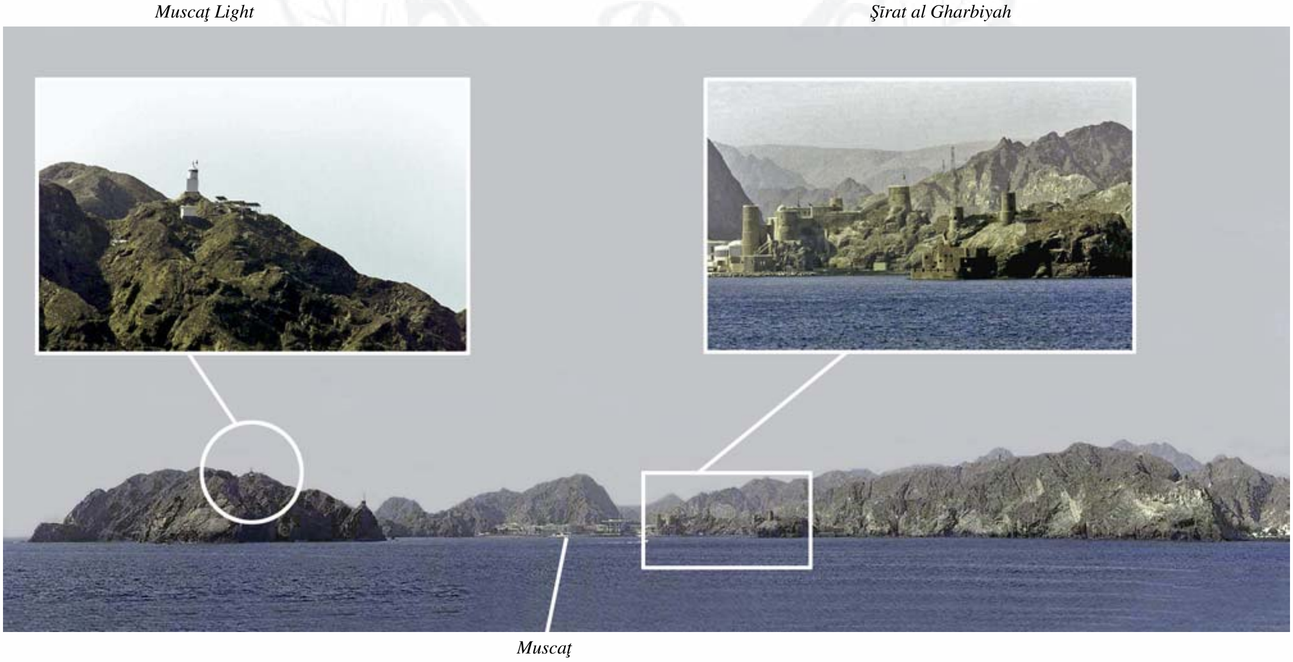
NE of Ra's Kalbūh (5¾ cables W), a 46 m high cliff which forms the E entrance point to Khawr Kalbūh; the cliff is the N extremity of a precipitous ridge rising from a position 500 m S of the point to an elevation of 133 m. A conspicuous buff coloured tower stands on the N end of this ridge; Ra's Kalbūh Light-buoy (lateral) is moored close W of the point. Thence:

2 SW of Fisher's Rock (2 cables N), a 3 m high rock situated at the outer end of the reef extending N from Ra's Muscaţ; Fisher's Rock Light-buoy (port hand) is moored close NNW. Thence:

SW of Ra's Muscaţ (Ra's Masqaţ) (1¼ cables N), a round sloping bluff, with a reef at its foot and cliffs on its S side, which forms the N extremity of Jazīrat Muscaţ (3.51), thence:

SW of Muscaţ Light (3.51), thence:

3 SW of a rock awash (1¼ cables SW) close off the W side of Jazīrat Muscaţ. An obstruction, with a least depth over it of 14 m, lies close to the track in the middle of the harbour 1½ cables WSW of the shoal rock. Thence:



Khawr Muscaţ (3.58)

(Original dated 2001)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

SW of Pinnacle Rock (1 cable SW), a white topped rock, 3 m high, lying close off the W side of Jazīrat Muscaţ; fish traps are present within the small bay close N of the rock. Thence:

NE of Şīrat al Gharbiyah (3¾ cables SW) (3.65); and through to the vicinity of the Royal Oman Naval Base.

Naval Base

General information

3.67

1 **Position.** A Royal Oman Naval Base is situated on the W side of Marsa al Mukallah, a small bay in the SW part of Khawr Muscaţ.

Directions

3.68

1 **Approach.** The base is approached through Khawr Muscaţ, passing E, then S of Şīrat al Gharbiyah (23°37′·3N 58°35′·5E).

Entry. See 3.66.

Berths

3.69

1 The base, situated at the head of Marsa al Mukallah, has a main quay oriented in N/S direction with a narrow basin E/W at the N end of the quay. A light is exhibited from close off the S entrance to the narrow basin; red lights are exhibited from the Royal Yacht Squadron building 150 m SW. A flagstaff, 15 m high, stands at the S end of the quay.

Two mooring buoys are laid in the central part of the S end of Khawr Muscaţ; further mooring buoys (yellow) are laid in the S part of Marsa al Mukallah.

Port services

3.70

1 **Facilities.** There are two slipways; hospital; see 3.94.

Supplies. See 3.95.

Communications. See 3.97.

PORT SULTAN QĀBOOS

General information

Charts 3522, 3518 plan of Port Sultan Qāboos and Muscaţ

Position

3.71

1 Port Sultan Qāboos (23°38′N 58°34′E) is situated on the S side of Gulf of Oman, 200 miles SSE of the Strait of Hormuz.

Function

3.72

1 Muscaţ (Masqaţ) is the capital city of Oman, in the recent past it has undergone extensive development to become a thriving and expanding international centre, it now extends from the old town of Muscaţ (3.59), at the head of Khawr Muscaţ, through to Seeb (23°41′N 58°10′E); the population of this area is estimated to be 500 000 (2003).

Port Sultan Qāboos, the port of Muscaţ, is the main deep water port of Oman; the town of Mutrah (Maţraḩ) is situated on the SW side of the head of the port. Exports include frozen fish, scrap metal, copper cathodes and chromate; imports include grain, steel, clinker, white goods, vehicles, industrial spares, fertilisers, foodstuffs and livestock.

Topography

3.73

1 Ra’s Kowasir (23°37′·9N 58°34′·0E), a barely distinguishable point close N of Basin 1, once formed the E entrance to a small inlet, since in-filled, which now forms part of the container storage area; the islet of Ra’s Kūtrah (3.92) lies close N of Ra’s Kowasir. The coast in the vicinity of the port is hilly and radar conspicuous.

Port limits

3.74

1 The port limits extend for about 3 miles seaward between Ra’s Kābb (23°38′·0N 58°33′·4E) and Ra’s Muscaţ (2¼ miles E); they do not include Khawr Muscaţ (3.58).

Approach and entry

3.75

1 The port, open from N, is approached passing E of Jazīrat Faḩl (23°41′N 58°30′E) and Faḩl Fairway Light-buoy (23°41′N 58°32′E) (3.51); the port is entered between Ra’s ash Shuţayfī (23°38′N 58°34′E) and Ra’s al Bāz (1 mile SE); see 3.87.

Traffic

3.76

1 In 2004 the port was used by 1116 vessels with a total dwt of 18 442 400 tonnes.

Port Authority

3.77

1 Port Sultan Qāboos Port Authority, PO Box 133, Port Services Corporation (SAOG), Muscaţ, 113, Oman.

Limiting conditions

Controlling depth

3.78

1 The main harbour area is dredged to a depth of 13 m (1994).

Mean tidal levels

3.79

1 Mean spring range about 1·7 m; mean neap range about 0·8 m; see *Admiralty Tide Tables Vol 3.*

Density of water

3.80

1 Density 1·026 gms/cm^3.

Maximum size of vessel handled

3.81

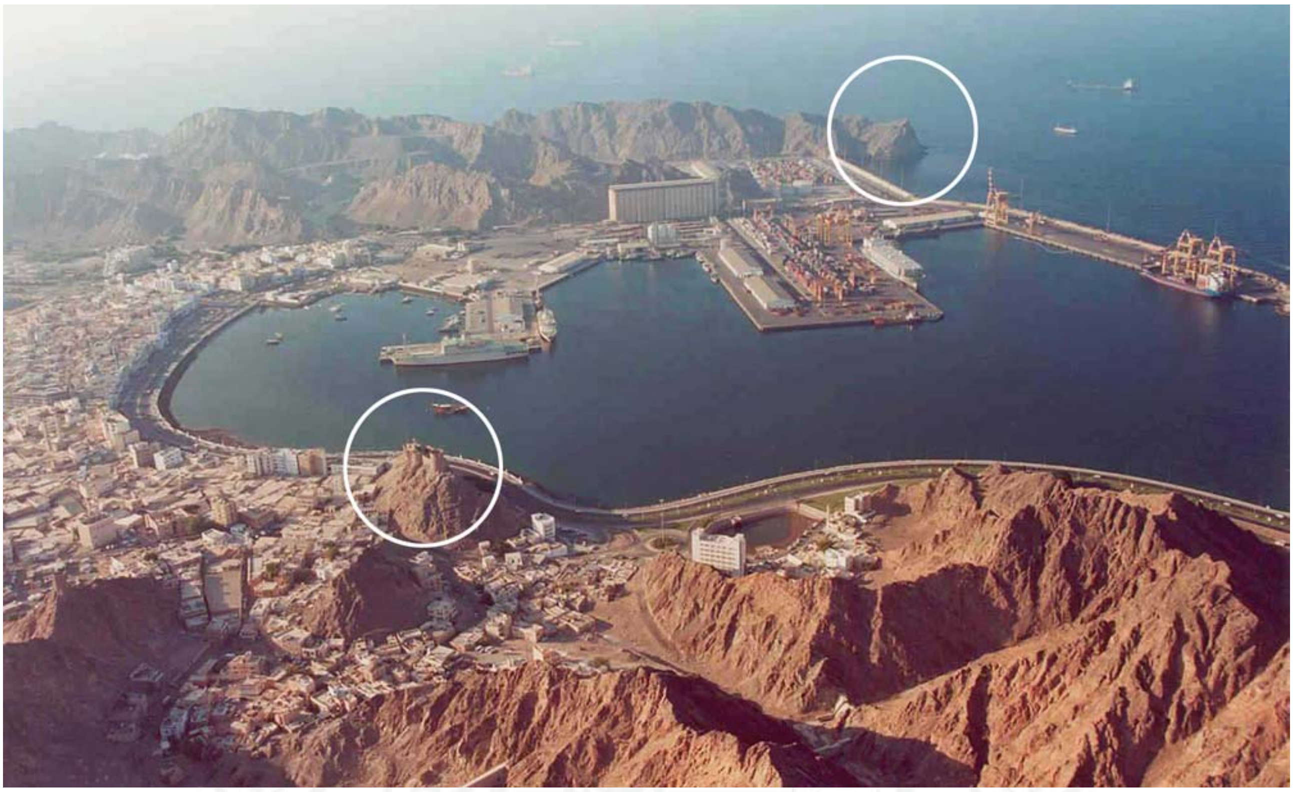
1 The port can accommodate vessels of up to an overall length of 260 m on a maximum draught of 12·5 m.

Local weather

3.82

1 **Winds.** The prevailing winds are generally NW and SE, but in winter they are more SW and in summer more from E; during January and February winds are fresh and bring some rainfall. Winds of any force from between NW and NE raise considerable seas and swells within both Khawr Muscaţ (3.58) and Dawḩat Maţraḩ (3.88).

Weather. The fine weather experienced between March and May becomes, in summer, hot and humid with daytime temperatures rising to 50°C. Fine weather returns in October with a gradual cooling; winters are generally cool and pleasant with temperatures between 25°C and 35°C falling as low as 10°C at night; there are many periods of winter calms.



Port Sultan Qaboos (3.71)
(Original dated prior to 2004)

(Photograph – Port Sultan Qaboos Port Services Corp.)

Arrival information

Notice of ETA

3.83

1 Vessels should give notice of ETA 72 hours, 48 hours and 24 hours in advance through their agent; the message should include, length, draught gross and net tonnage. ETA should be confirmed 3 hours before arrival on VHF.

See *Admiralty List of Radio Signals Volume 6 (3)*.

Outer anchorage

3.84

1 The waiting anchorage lies in an area NW of the harbour entrance. Vessels intending to use the anchorage must contact the port control giving their particulars and request allocation of an anchorage berth; they must have the representation of a local agent before permission will be granted.

A wreck, with a least depth over it of 31 m, lies 3¼ cables E of Ra’s ash Shuţayfī (23°38′·2N 58°33′·9E).

2 **Prohibited anchorage.** An area in which anchoring is prohibited encloses most of the limits of the port except for the outer anchorage area off Ra’s ash Shuţayfī; the prohibited area extends E of the port limits; see 3.74.

Pilotage

3.85

1 Pilotage is compulsory for vessels over 150 nrt and available day and night; the pilot boards in the vicinity of 23°38′·3N 58°35′·0E, 9 cables NE of the breakwater light.

Tugs

3.86

1 Tugs are available.

Regulations concerning entry

3.87

1 **Track.** Inward or outward bound vessels are required to pass at least 1 mile E of Faḩl Fairway Light-buoy (23°41′N 58°32′E) (3.51).

Prohibited areas. The prohibited entry area (3.61), restricted entry area (3.113) and prohibited anchorage area (3.84) areas must all be strictly observed.

Harbour

General layout of harbour

3.88

1 The main commercial harbour has 10 deep-water berths and 3 others with lesser depths alongside; all are situated on its NW side; Khawr Riyām is a small bay on the E side of Dawḩat Mutrah; the main highway between Mutrah and Muscaţ follows the S shores of both Khawr Riyām and Dawḩat Mutrah.

A light-buoy (starboard hand) is moored close W of the outer end of the breakwater; three further light-buoys (port hand), numbered 2 to 4, mark the S side of the port area dredged to 13 m; No 5 light-buoy (port hand) is moored in Dawḩat Mutrah SE of the outer end of No 12 Berth.

Currents

3.89

1 Currents in the vicinity of both the port and Mīnā’ al Faḩl Oil Terminal are weak and variable being much influenced by local winds. Average rates are of the order of ½ kn, but this may increase during the months of July and August to about ¾ kn. There is a slight predominance of SE currents, more noticeable between the months of April and October, but counter currents can be experienced within 5 miles of the coast. A strong SE set, with a rate of

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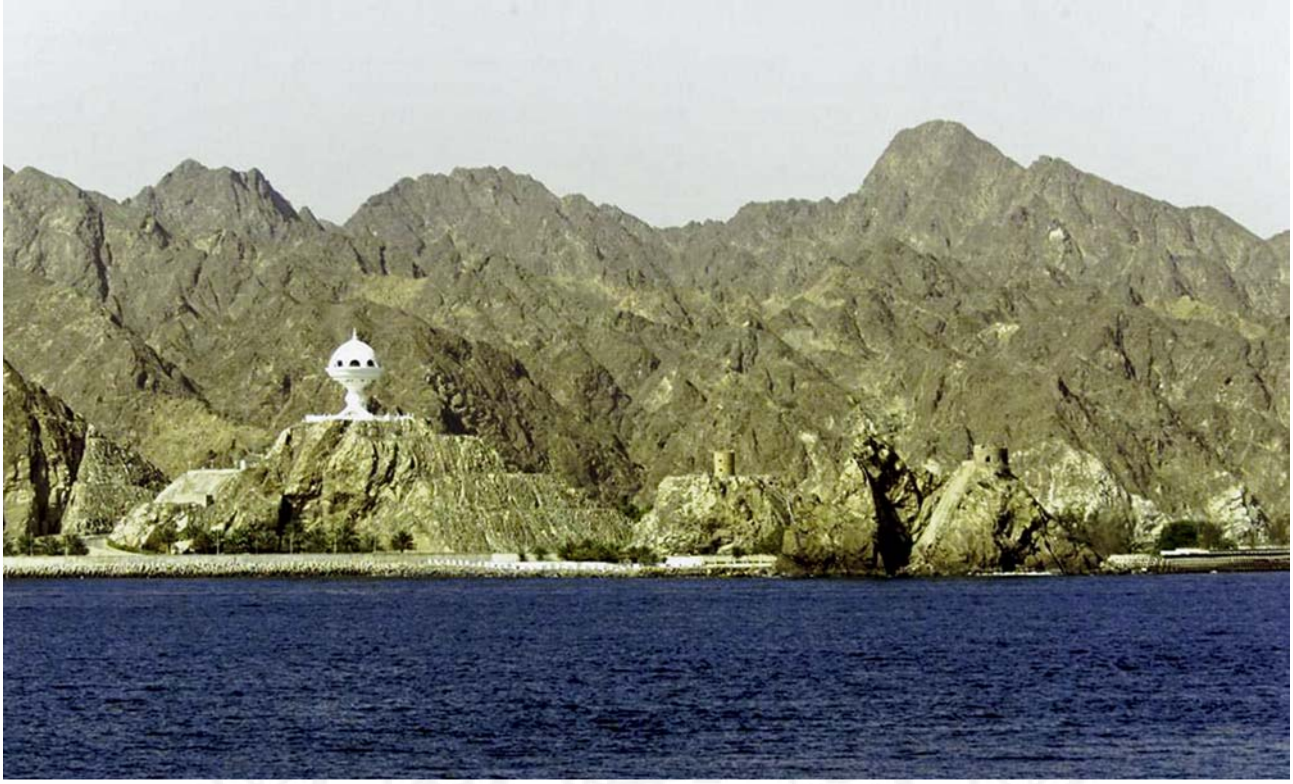


Ra’s al Bāz (3.90)

(Original dated 2001)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

up to 4 kn, has been reported in the approaches to the port and the terminal.

Principal marks

3.90

1 **Landmarks:**

Jazīrat Faḩl (23°41′N 58°30′E) (3.132).

Jazīrat Muscaţ (23°37′·6N 58°35′·8E) (3.51).

The port container cranes (orange and white) within Basin 1 (3.93) are prominent.

A conspicuous observation tower (23°37′·4N 58°34′·8E) (see diagram Chart 3518), 68 m high with the appearance of an incense burner, stands on a flat topped hill S of Ra’s al Bāz (3.92). The tower (obstruction lights) is illuminated at night.

2 A group of grain silos (23°37′·7N 58°33′·8E), 25 m high, stand on the NW side of the port area; a red light is exhibited from the NE silo of the group.

Mutrah Castle (23°37′·2N 58°34′·0E), 30 m high, stands on the summit of a detached hill which separates the village of Muţayraḩ from the town of Mutrah (3.72); the castle is conspicuous and illuminated at night.

Directions for entering harbour

Approaches

3.91

1 Approaching from N or W steer to pass N and E of Faḩl Fairway Light-buoy (23°41′N 58°32′E) (3.51) keeping at least 1 mile E of the light-buoy and well clear of the tanker berths in Mīnā’ al Faḩl (3.98); then make an approach, as required, to either the pilot boarding position or the waiting anchorage; see 3.87.

Entrance channel

3.92

1 From the vicinity of the pilot boarding position the track leads SW, passing (with reference to Port Sultan Qāboos Breakwater Head Light (23°37′·6N 58°34′·3E)):

NW of Ra’s Muscaţ (1¼ miles E) (3.66) the N extremity of Jazīrat Muscaţ; and Fisher’s Rock Light-buoy (port hand), thence:

NW of Ra’s Kalbūh (8 cables E) (3.66); two foul areas, with least depths of 25 m, lie close SE of the track. Thence:

2 SE of Ra’s ash Shuţayfī (7 cables NW), a vertical cliff at the NE end of a ridge of hills which stand close NW of the port’s container storage area; Ra’s Kūtrah, a low white islet, lies close off the shore at the SE end of this storage area. An obstruction, with a least depth over it of 18·9 m, lies close NW of track. Thence:

NW of Ra’s al Bāz (3½ cables E), which separates Khawr Kalbūh from Port Sultan Qāboos; the point rises to a solitary hill, 30 m high, on the summit of which stands a round tower; a conspicuous observation tower stand close S of the point (3.90). The hill is connected with the higher part of the promontory S by a sandy isthmus; a jetty, 40 m long, protected by a breakwater extends W from the W side of the isthmus. No 1 Light-buoy (port hand) is moored close off the point. Thence:

3 SE of Port Sultan Qāboos Breakwater Head Light (red mast, yellow stripes) exhibited from the SE extremity of the breakwater; a conspicuous flagstaff stands close W of the light structure. Two obstructions, with least depths over them of 13·5 m

and 14·3 m, lie close E of the breakwater head. Thence:

Through into the main port area.

Basins and berths

3.93

1 Basin 1 is formed by the main outer breakwater and the container terminal quay; lights are exhibited from the outer end of No 1 Berth and the NE corner of No 6 Berth; the basin is dredged over most of its area to a depth of 13 m (1994) alongside depths vary. Berths 1 and 2 have a combined length of about 460 m and can handle Ro-Ro traffic. Basin 2 is formed by the container terminal quay and a smaller ‘L’ shaped quay; an automatic tide gauge is situated within the basin at the corner of Berths 8 and 9. Berth 13 lies within the smaller inner basin along with other berths, a small fishing harbour and some moorings. Lights are also exhibited from SW corner of Berth 6, and the NE corner of Berth 12 and its SE ends.

Port services

Facilities

3.94

1 Hospitals; port clinic; divers available; mobile cranes; fire and pollution control equipment; deratting and exemption certificates issued.

Supplies

3.95

1 Fuel oil and lubricants; fresh water available at all berths, and at the anchorage by barge; provisions; ship-chandlery; garbage reception facilities.

Harbour regulations

3.96

1 Rat guards are required to be fitted on all the mooring ropes and wires; guards may be hired from the port authority; garbage bins are available and their use is compulsory; discharge of sewage into the harbour is prohibited.

Communications

3.97

1 The nearest airport is Seeb International Airport (3.139), 24 km W of the port area.

MĪNĀ’ AL FAḪL OIL TERMINAL

General information

Chart 3518 plan of Muscaţ to Mīnā' al Faḫl

Position

3.98

1 Mīnā' al Faḫl Oil Terminal lies 2 miles N of Ra’s al Masītā (23°38′N 58°32′E) in open water in the NE approaches to Mīnā’ al Faḫl (23°39′N 58°32′E), a shallow indentation in the coast, 4½ miles WNW of Muscaţ, the bay is entered between Ra’s al Masītā and Ra’s al Abyaḑ (1¾ miles WNW).

Function

3.99

1 The terminal is the main oil export facility for Oman. SBM Nos 1 and 2 are for the export of crude oil; No 3 is used for both the import and export of gas oil and jet fuels.

Approach

3.100

1 Unless berthing at one of the coastal tanker moorings all vessels should pass N of Jazīrat Faḫl (23°41′N 58°30′E) and Faḫl Fairway Light-buoy (23°41′N 58°32′E).

Traffic

3.101

1 In 2004 the port was used by 284 vessels with a total dwt of 62 476 938 tonnes.

Port Authority

3.102

1 Petroleum Development (Oman), PO Box 81, Muscaţ 113, Oman.

Crew change

3.103

1 Local formalities require at least 10 days notice for any personnel or crew changes.

Limiting conditions

Mean tidal levels

3.104

1 Mean spring range about 1·8 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Density of water

3.105

1 Density 1·026 gms/cm^3.

Maximum size of vessel handled

3.106

1 SBM No 2 can handle vessels up to 554 000 dwt on a maximum draught of 29·3 m; smallest size accepted 60 000 dwt.

Local weather

3.107

1 See 3.82.

Arrival information

Port operations

3.108

1 Berthing may be restricted during winter due to the swell height and sea state; by day the criteria are a mean wind speed of 35 kn and a sea and swell height of 3 m; by night a mean wind speed of 25 kn and a sea and swell height of 2 m. A berthing master and assistant will board on arrival and will advise on mooring operations and hose connections; all tasks are undertaken by ships staff. The role of the berthing masters is solely advisory, their attendance on board is in order to assist the master and are deemed to be under his control. During berthing operations one tug will assist with mooring operations another will keep floating hoses clear during the final approach. Before arrival suitable soft mooring ropes should be laid ready for use by tugs on the starboard shoulder forward and the centre fairlead aft.

2 A continuous forecastle watch must be maintained during the vessels stay to report the SBM position in relation to the ships bow; under certain conditions of wind and tide a vessel has a tendency to ride up to the buoy.

Coastal tanker berths. Vessels moor using both anchors and mooring ropes to buoys on each quarter; discharge is through the stern manifold.

Notice of ETA

3.109

1 Vessels should give notice of ETA 5 days, 4 days, 72 hours, 48 hours and 24 hours in advance of their arrival to PETROMAR MUSCAT; any change in ETA in excess of 2 hours must be advised immediately; ETA should be confirmed on VHF 2 hours before arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage

3.110

1 A waiting anchorage W of Jazīrat Faḩl (23°41′N 58°30′E has been established for use by vessels waiting for a berth. Other vessels within the territorial waters of Oman, waiting for orders, may also use the anchorage; no other waiting anchorage may be used. Port control radio should be contacted for allocation of an anchorage position.

Obstructions. An area of foul ground, abandoned anchors and cables, lies close off the E side of the anchorage area, NW of Jazīrat Faḩl.

2 **Local regulations.** All vessels using the waiting anchorage, except vessels waiting for an SBM berth, are liable for harbour dues.

Pilotage

3.111

1 Pilotage is compulsory for all tankers and is undertaken day and night; the pilot and berthing master board either 1½ miles NE of Jazīrat Faḩl (23°41′N 58°30′E) or 1 mile E of Faḩl Fairway Light-buoy (23°41′N 58°32′E); boarding position will be advised by port radio and will depend on the prevailing current. Vessels must not enter the restricted area (3.113) unless a berthing master is embarked.

Tugs

3.112

1 Tugs are available.

Regulations concerning entry

3.113

1 **Tankers.** All tankers should arrive with clean ballast; there are no facilities for the reception of dirty ballast.

Anchors. To prevent damage to the SBM moorings and submerged pipelines, anchors must be secured in seagoing condition before the vessel enters the restricted area and must remain secured whilst the vessel in moored at the SBM.

2 **Restricted area.** The restricted area should not be entered without the services of a pilot; the area is patrolled by police launches.

Harbour

General layout

3.114

1 Three SBM berths, connected by submarine pipelines to the shore, lie between 1 and 2 miles N of Ra’s al Masītā (23°38′N 58°32′E); a fourth is moored close inshore 5 cables ENE of the point and is retained as a replacement and is not in general use. Moorings for coastal tankers are situated in the SW part of the bay and a small wharf, protected a breakwater, is on its W side.

Hazards

3.115

1 Two foul areas centred on 23°39′·0N 58°31′·1E and 23°38′·5N 58°31′·9E lie in the approach and within Mīnā’ al Faḩl.

Floating pipelines can be expected to extend up to 4 cables in the direction of the prevailing set.

Natural conditions

3.116

1 **Tidal streams** in the area predominantly set E-W.

Current. See 3.89.

Climatic table. See 1.145 and 1.146.

Principal marks

3.117

1 **Landmarks:**

Jazīrat Muscaţ (23°37′·6N 58°35′·8E) (3.51).

A conspicuous oil tank (sand coloured) (23°36′·4N 58°31′·2E) stands on high ground S of Mīnā’ al Faḩl at an elevation of 178 m.

A radio mast (red obstruction lights, 348 m high) (23°35′·6N 58°32′·1E) stands on a hill S of Mīnā’ al Faḩl.

Jazīrat Faḩl (23°41′N 58°30′E) (3.132).

An observation tower (23°37′·4N 58°34′·8E) (see diagram Chart 3518) (3.90).

Directions for entering harbour

3.118

1 From the W pilot boarding position, 1½ miles NE of Faḩl Fairway Light-buoy (23°41′N 58°32′E), the approach leads SSE passing, (with reference to Faḩl Fairway Light-buoy):

ENE of Jazīrat Faḩl (3.132), thence.

WSW of Faḩl Fairway Light-buoy (safe water) and towards the designated SBM berth.

From the E pilot boarding position, 1 mile E of Faḩl Fairway Light-buoy (23°41′N 58°32′E), the approach leads generally SW passing, (with reference to Faḩl Fairway Light-buoy):

2 Clear of Faḩl Fairway Light-buoy (safe water), and:

SE of Jazīrat Faḩl (3.132) and towards the designated SBM berth.

Useful mark:

A beacon (23°38′·5N 58°31·2E) (white diamond topmark, 97 m in elevation) stands on high ground 400 m SSE of Ra’s al Abyaḑ.

Berths

Main berths

3.119

1 SBM No 1 lies 1¼ miles NE of Ra’s al Masītā (23°38′N 58°32′E), and can handle vessels up to 350 000 tonnes dwt with a maximum arrival draught of 19·5 m and a departure draught of 21·0 m; depth at the buoy is 34 m. SBM No 2, 2 miles NNE of Ra’s al Masītā, and can handle vessels up to 554 000 tonnes dwt with a maximum draught of 29·3 m; depth at the buoy is 43 m. SBM No 3, 1¼ miles N of Ra’s al Masītā, and can handle vessels up to 100 000 tonnes dwt with a maximum draught of 14 m; depth at the buoy is 20 m. Lights are exhibited from all SBMs.

Coastal tanker berths

3.120

1 Two coastal tanker mooring berths consisting of two pairs of mooring buoys (white) connected to the shore by submarine pipelines, lie 2 cables offshore in the W part of Mīnā’ al Faḩl. The W berth is suitable for use by vessels with draughts of between 3·0 and 4·5 m. A light-buoy (yellow pillar) marks the outer end of a submarine pipeline extending 4 cables N from the shore between the two pipelines serving the berths.

Regulations. A tug is required to be in attendance for berthing, unberthing and for escorting vessels clear of the port area; berthing is only undertaken during daylight, unberthing 24 hours.

Alongside berths

3.121

1 A wharf on the W side of the bay, illuminated at night and protected by a breakwater, extends 1 cable SE from a point on the shore 5 cables SE of Ra's al Abyaḑ (23°39′N 58°30′E); a light (metal post, 3 m high) is exhibited from the outer end of the breakwater. A jetty, used by the pilot launches, extends NNE from the shore S of the breakwater head; further mooring buoys are laid between the jetty and the breakwater head.

Port services

Facilities

3.122

1 Hospital; dentist (24 hours notice); there are no facilities for the reception of dirty ballast water; garbage reception facilities (available by barge); deratting and exemption certificates issued; see 3.94.

Supplies

3.123

1 Provisions available (24 hours notice); fresh water (barge); fuel oil available at SBM's Nos 1 and 2, diesel oil at No 3 and by barge; drummed lubricants available; see 3.95.

Communications

3.124

1 See 3.97.

Harbour regulations

3.125

1 **Mooring watch.** See 3.108.

Pollution. The Government of Oman maintains a strict anti-pollution policy; any vessel found polluting the vicinity of these berths is liable to severe censure and a fine.

MUSCAŢ TO DAWḨAT DIBĀ

GENERAL INFORMATION

Chart 2851

Area covered

3.126

1 This section describes the coastal passage, anchorages and harbours from Muscaţ (23°36′N 58°36′E) to Dawḩat Dibā (25°38′N 56°17′E), 170 miles NW.

It is arranged as follows:

- Jazīrat Faḩl to Ra's Suwādī (3.130).
- Ra's Suwādī to Ra's Şallān (3.142).
- Ra's Şallān to Fujairah (3.157).
- Fujairah (3.174).
- Vopak ENOC Tanker Terminal (3.205).
- Fujairah to Khawr Fakkān (3.222).
- Khawr Fakkān (3.230).
- Khawr Fakkān to Ra's Dibā (3.255).

General remarks

3.127

1 Al Bāţina, an important maritime district of Oman, extends from the vicinity of the village of Ḩayl Awāmir (23°38′N 58°15′E), on the W shore of Ghubbat al Ḩayl (3.139), to a position 1 mile N of Al Murayr (126 miles NW). The whole coast is quite open to both the *shamāl* and *nashī,* for the latter wind the coast of Al Bāţina is a lee shore.

2 The shores of the Ash Shumaylīyah region of the United Arab Emirates begins in the vicinty of the Oman border near the village of Khaţmat Malāḩah (24°58′·7N 56°21′·7E), this coastline is shared between two emirates, Ash Shāriqah, also known as Shārjah, and Fujairah, the only emirate with its entire coastline bordering Gulf of Oman. In the recent past Ash Shumaylīyah has been developed with many modern buildings visible from seaward especially those in the vicinity of the Fujairah (25°11′N 56°22′E), and the deep water container terminal at Khawr Fakkān (25°21′N 56°22′E). Several fishing harbours are situated along this stretch of coastline.

Topography

3.128

1 The whole length of the Al Bāţina coast is approximately 8 m high and sandy, with many towns and villages each with its own fort that is now, more or less, in ruins; date groves are almost continuous along the coast, but here and there are sandhills; for a distance of about 12 miles inland the country is generally level. Jabal Nakhl (23°24′N 57°55′E) is a spur of the main mountain range which extends NE into the SE part of Al Bāţina. The spur has three principal peaks, the S stands at an elevation of 2100 m appearing like a pepper-pot sitting on the top of the spur and is visible from off Muscaţ, but farther W it becomes hidden behind the other peaks and farther NW it appears as one of the few sharp peaks along this coast; it is the most easily distinguished peak.

2 Jabal Akhdar is the range of mountains which lie parallel with the coast about 30 miles inland. Jabal Shām (23°14′N 57°16′E) which forms the summit of the range is not visible from the E until clear of Jabal Nakhl, it has two steps on its upper part with the N face appearing almost precipitous; the summit slopes gradually W from these two steps. From Jabal Akhdar a further range of mountains, visible from seaward for the whole of its length, extends N to the entrance to Persian Gulf, this range gradually approaches the coast until at Al Murayr (24°56′N 56°23′E) there is only a comparatively narrow plain between the foothills of the range and the coast.

Anchorages

3.129

1 Anchorage can be obtained off the coast of Al Bāţina in depths more than 9 m, but within this depth the seabed is very uneven and in some places rocky. Landing is usually difficult.

JAZĪRAT FAḨL TO RA’S SUWĀDĪ

General information

Charts 3522, 3523

Route

3.130

1 From a position NE of Faḩl Fairway Light-buoy (safe water) (23°41′N 58°32′E) the outer route leads N of Jazā’ir ad Daymānīyāt (3.136), initially 25 miles WNW then 20 miles W, to a position NNE of Ra’s Suwādī (23°47′N 57°47′E). The inner route leads S of Jazā’ir ad Daymānīyāt, 43 miles W, to a position N of Ra’s Suwādī.

Topography

3.131

1 See 3.128.

Principal marks

3.132

1 **Landmarks:**

Jazīrat Faḩl (23°41′N 58°30′E), a precipitous, steep-to islet which lies 2 miles N of Ra’s al Abyaḑ, cliffs overhang the islet on all sides except at its SW end where landing can be effected. The islet is of a light colour and usually shows up well against the land making it a good mark if approaching from the W or N. A light (white triangular daymark on metal framework tower, 6 m high) is exhibited from near its centre.

Jabal Ţāyīn (23°21′N 58°18′E) (Chart 2851) the summit of which forms the highest point of the high ground extending inland SW of Ra’s al Ḩamrā (3.139). Wādī Samā’il is the great valley between Jabal Ţāyīn and Jabal Nakhl (22 miles W) (3.128).

2 Jabal Bardah (23°35′N 58°35′E) (3.51) is a good mark from seaward when, usually during the summer months, the mountains inland are seldom clearly visible except at sunrise or sunset.

Major light:

Jazā’ir ad Daymānīyāt Light (metal framework tower) (23°51′·3N 58°03′·9E) exhibited from the N side of the summit of the W islet of the group (3.136).

Other aid to navigation

3.133

1 **Racon:**

Jazā’ir ad Daymānīyāt (23°51′·3N 58°03′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.51)

Outer route

3.134

1 From a position NE of Faḩl Fairway Light-buoy (safe water) (23°41′N 58°32′E) the outer track initially leads WNW, passing:

NNE of Jazīrat Faḩl (23°41′N 58°30′E) (3.132), thence:

NNE of Jazīrat Kharābah (23°50′N 58°10′E) (3.136), thence:

N of the buoys (yellow, pillar) (23°54′N 58°06′E) (3.136), thence:

2 N of Jazā’ir ad Daymānīyāt (23°52′N 58°05′E) from which a light (3.132) is exhibited, thence:

N of Jazīrat Jūn (23°50′N 57°59′E) (3.135), thence:

N of Clive Rock (23°51′N 57°57′E) (3.135), thence:

N of Jabal ‘Add (23°47′N 57°47′E) an islet close NNE of Ra’s Suwādī (3.135).

(Directions continue at 3.145)

Inner route

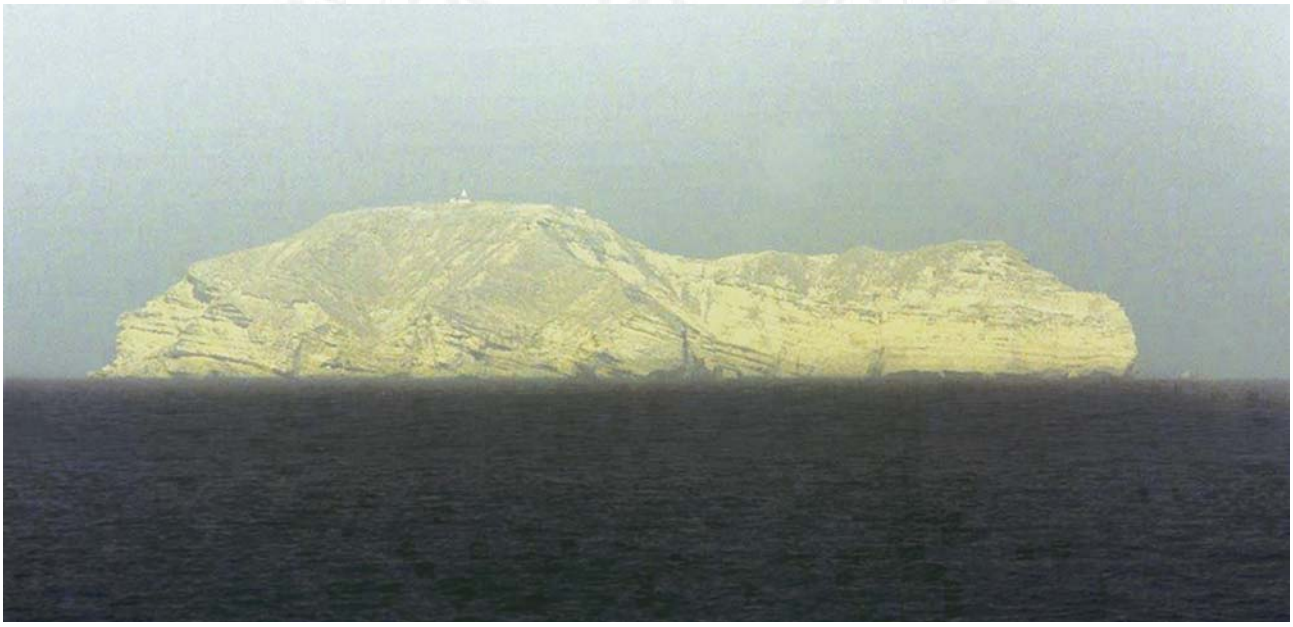
3.135

1 From a position NE of Faḩl Fairway Light-buoy (safe water) (23°41′N 58°32′E) the inner track leads W, passing:

N of Jazīrat Faḩl (23°41′N 58°30′E) (3.132), thence:

N of Seeb (23°41′N 58°10′E) (3.139), thence:

S of Jazīrat Kharābah (23°50′N 58°10′E) (3.136), thence:



Jazīrat Faḩl (3.132)

(Original dated 2001)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

S of an isolated shoal patch (23°50′N 58°09′E), with a least depth of 3·4 m, 1½ miles WSW of Jazīrat Kharābah, thence:

2 S of Jazā'ir ad Daymānīyāt (23°52′N 58°05′E) from which a light (3.132) is exhibited; and NNE of the prominent group of buildings at Bayt al Barakāt (23°43′N 58°05′E) (3.141). Thence:

S of Jazīrat Jūn (23°50′·3N 57°58′·7E) (3.136), thence:

S of Clive Rock (23°51′N 57°57′E), a coral rock, with a least depth over it of 2·7 m, surrounded by an area of shoal water, 1 mile WNW of Jazīrat Jūn. The rock is visible as a green patch under most weather conditions. Thence:

3 N of Jabal 'Add (23°47′N 57°47′E) an islet in the Jazā'ir Suwādī group close NNE of Ra's Suwādī, a low, sandy projection.

(Directions continue at 3.145)

Anchorages and harbours

Jazā'ir ad Daymānīyāt

3.136

1 **General information.** Jazā'ir ad Daymānīyāt (Daymānīyāt Islands) (23°51′N 58°05′E) is a group of islands lying nearly parallel to the coast between 7½ miles and 9 miles offshore, N of Bayt al Barakāt (23°43′N 58°05′E) (3.141). They are all quite barren and waterless, but are frequented by local fishermen; depths S of the islands are less than 30 m with a seabed of mainly sand, mud and broken shell.

Restricted area. The area surrounding Jazā'ir ad Daymānīyāt is a nature reserve; other than by local fishing vessels, anchoring, diving and approaching within 200 m of any of the islands are all strictly prohibited without a permit from the Oman Ministry of Regional Municipalities, Environment and Water Resources.

2 **Exercise area.** Tahr firing practice area lies N of Jazā'ir ad Daymānīyāt. Two buoys for use in naval exercises, No 1 Light-buoy (pillar, special) (23°54′N 58°06′E) and No 2 Buoy (pillar, special) (close S), are moored just within the exercise area; see 3.4.

3.137

1 **Jazīrat Kharābah** (23°50′·3N 58°10′·3E), the E island of Jazā'ir ad Daymānīyāt, lies 9 miles N of Seeb (3.56), the island is 9 m high with black rocky points separated by white sandy beaches with several detached off-lying rocks; a small islet lies off its NE corner. A reef, with a least depth over its outer end of 2·4 m, extends 6 cables E from the island; a dangerous rock lies off its SE corner and detached shoal, with a least depth of 3·4 m, lies 1½ miles WSW.

2 **Middle group.** The middle group of islands (23°52′N 58°05′E) (not individually named) consists of seven small islands and islets along with some detached rocks. The E island is 16 m high and the W island 25 m, both have low cliffs of light-brown colour which are difficult to distinguish at night; the whole group is steep-to with no off-lying shoals. On the W island of the middle group stand two small hills separated by a valley; there are two good sandy beaches near the middle of its S side providing easy landing.

3.138

1 **Jazīrat Jūn** (23°50′·3N 57°58′·7E), with some small islets, forms the W part of Jazā'ir ad Daymānīyāt; the island rises to a height of 48 m near its W end, it is light in colour, but is not easily identified at night. A rock, with a least depth of 7·8 m, lies 5 cables S of Jazīrat Jūn on a shoal area, which extends just over 1 mile S of the island over which there is a least depth over its outer end of 18·4 m; a shoal area, with least depths over it of 3·0 m, surrounds the W, islet.

2 **Anchorage** can be obtained 4½ cables S of the W islet of the middle group in a depth of 27 m, sand over rock; the berth is reported to provide only moderate holding but has provided good shelter from a heavy swell, caused by a light *shamāl*, rolling in round the islets. Anchorage can also be obtained off the S side of Jazīrat Jūn, 3 cables off a small sandy beach in depths of between 13 and 15 m, sand, but care must be taken to avoid the rock, with a least depth over it of 7·8 m, which lies S of the island. Though this anchorage is protected from the N a swell rolls around the island during strong winds.

Ghubbat al Ḩayl

3.139

1 **Description.** Ghubbat al Ḩayl (23°38′N 58°22′E) is a large and sandy bay extending 17 miles W of Ra's Ḩamrā (23°38′·9N 58°29′·4E); a stranded wreck lies 1½ miles SW of the point and is marked by Qurum Light-buoy (N cardinal) moored 2 cables NW; another stranded wreck, 5 miles W of Ghubrah Desalination Plant, is marked by Seeb Light-buoy (N cardinal) moored 3 cables N. Seeb, a town at the W end of Ghubbat al Ḩayl is difficult to identify on account of the continuous coastal belt of palms extending W from the village of Ḩayl Awāmir (23°38′N 58°15′E). Two white-domed buildings and a fort are visible from seaward, a ruined fort stands a short distance S and is visible through a gap in the palm trees. Seeb International Airport (23°36′N 58°17′E) lies close SW and can be identified from seaward by a conspicuous hangar. Sand dunes, between 2 and 4 m high, fringe the coast in the vicinity of the plant; a conspicuous date grove lies in a dip in the sand dunes 2 miles W.

2 **Useful mark:**

A prominent hotel (23°37′·0N 58°27′·9E) stands near the coast SW of Ra's al Ḩamrā, at night its domes are illuminated; more white domes stand about 1700 m E of the hotel.

Ghubrah Desalination Plant (23°36′·1N 58°24′·8E) is situated on the shore of Ghubbat al Ḩayl 5 miles WSW of Ra's al Ḩamrā. The plant is a prominent building standing close to the shore with six tall conspicuous chimneys of dark grey colour with red and white banded tops; associated storage tanks stand close by; four jetties, carrying pipelines, extend up to 275 m from the shore. A grey pump house on the E and main jetty is very prominent and reported to be radar conspicuous. A light (metal column, triangular topmarks apex up) (23°36′·6N 58°24′·7E) is exhibited from the W of the two middle jetties.

3 **Anchorage** can be obtained 5 cables off Seeb in depths of 9 m, sand; this anchorage offers no protection.

Chart 3523

Barkā'

3.140

1 **Description.** Barkā' (23°43′N 57°54′E) is a town which extends for 3 miles along the coast SE of Ra's Suwādī; extensive date palm plantations grow along the coast terminating 3 miles from the point where the coast is then bordered by sand and scrub. A lofty and prominent fort, with four large towers, stands near the shore in the centre of the town.

Home Contents Index

Anchorage can be obtained off Barkā’ in depths of 9 m, sand; depths decrease regularly towards the coast, the seabed being visible in depths of less than 7 m; the anchorage offers no protection.

Bayt al Barakāt

3.141

1 **Description.** Bayt al Barakāt (23°43′N 58°05′E) lies close W of Ra’s al Ghāf, a broad low point situated in an area barren of date palms. The facility comprises a prominent group of buildings enclosed by a white wall from where a jetty extends a short distance N; a further smaller jetty lies 5 cables E. A shoal bank, with a least depth of 3·6 m, lies 1 mile N of the head of the main jetty; shoal areas with depths of about 4·0 m lie in the vicinity.

2 **Prohibited area.** A prohibited area extends about 2 miles offshore from the vicinity of the jetty.

Useful mark:

- A tower (red obstruction lights) stands in the middle of the facility; a light (metal post) is exhibited from the outer end of the jetty.

RA’S SUWĀDĪ TO RA’S ŞALLĀN

General information

Charts 3523, 2851

Route

3.142

1 From a position NNE of Ra’s Suwādī (23°47′N 57°47′E) the route leads NW for 61 miles to a position ENE of Ra’s Şallān (24°25′N 56°43′E).

Topography

3.143

1 Al Khābūrah (24°00′N 57°06′E), 25 miles WNW of Said Bin Sultan Naval Base (3.146), is one of the principal towns along the coast of Al Bāţina (3.127); in its N part the town is constructed of stone where there is also a ruined fort. Qaşabīyāt, 2 miles NNW, has two distinctive forts, the S with one tower and the N with two. Dīl Yāl Burayk (24°05′N 56°59′E) is a small village with two low forts, 350 m apart; Al Ja’ārīf (24°07′N 56°56′E), may be identified by a large square castellated tower of a darker colour than is usual on this coast; Muqay’īf (close N), with its large high fort, makes it the best mark on this coast.

Principal marks

3.144

1 **Landmarks:**

- Hūra Bargha (Sohar Peak) (24°17′·5N 56°31′·6E), a 496 m high peak, stands on the plain E of the mountain ranges, it is conical in shape, light brown in colour and, when visible, makes a good mark; when bearing less than 225° it appears triangular in shape.
- A radio mast (obstruction lights and an aero light; 60 m high) (24°19·2N 56°42·9E) stands 6 miles S of Aş Şuḩār.

Directions

(continued from 3.134 and 3.135)

3.145

1 From a position NNE of Ra’s Suwādī (23°47′N 57°47′E) the track leads NW, passing:

- NNE of a wreck (23°53′N 57°36′E) with a least depth over it of 18·7 m, thence:
- NNE of Said Bin Sultan Naval Base (23°50′N 57°31′E) (3.146), thence:

2

- Clear of, depending on draught, of Riqqat as Suwayq (24°02N 57°30′E) an isolated shoal, with a least depth of 15 m, thence:
- Clear of, depending on draught, of a shoal (24°04′N 57°19′E) with a least depth of 19·6 m, thence:
- NE of Şaḩam Harbour (24°09′N 56°54′E); a light is exhibited from the harbour, thence:
- NE of Ra’s Şallān (24°25′N 56°43′E).

(Directions continue at 3.161)

Said Bin Sultan Naval Base

Charts 3511, 3523

General information

3.146

1 **Position and function.** Said Bin Sultan Naval Base (23°50′N 57°31′E) is situated 170 miles SSE of the Strait of Hormuz near the small town of Wudām Sahil; it is the principal operational base for the Omani Navy and is the most prominent feature of the low lying coast in this area.

2 **Topography.** Maşna‘ah (23°47′N 57°38′E), a town on the coast 7 miles ESE of the base, is surrounded by date palm groves; a prominent fort with a flagstaff stands in the middle of the town. The villages of Jurāym, Ash Shirş, Shirş Yāl Burayk and Al’ Uwayd all lie between Maşna‘ah and the base. As Suwayq (23°51′N 57°28′E) is a partially walled town 5 miles W of the base. Raddah is the most important of several villages, including Al Qāriḩah, Baţţā’ Jibāh, Qasini and Ţawī Bedi Guish, which all extend without a break along the coast between As Suwayq and Khaḑrā’ Āl Sa’d (23°53′N 57°21′E).

3 **Approach and entry.** From NNE the approach leads SSW, then W, passing S of the outer breakwater head and between two inner heads.

Limiting conditions

3.147

1 **Controlling depth.** The entrance channel is dredged (1995) to 8·5 m; most of the main basin to 6·5 m (1995).

Mean tidal levels. Mean spring range about 1·8 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Arrival information

3.148

1 **Port operations.** The harbour is used solely as a naval base; there are no commercial berths or facilities.

Outer anchorage. Anchorage can be obtained 2 miles NNE of the fort at As Suwayq (23°51′N 57°28′E) in a depth of 11 m.

Prohibited anchorage. An area in which anchorage is prohibited extends 5 miles seaward of the base.

2 **Traffic regulations**. A restricted area extends about 1¼ miles seaward of the base; permission must be obtained by all vessels planning to enter the base or to anchor within its vicinity. No vessel may approach within 1 mile of the N breakwater head light (23°49′·9N 57°32′·1E) without clearance. Entry is prohibited other than for emergency or to obtain shelter from particularly inclement weather.

Harbour

3.149

1 **General layout of harbour.** Two breakwaters enclose a harbour within which there are a number of alongside berths, berthing piers and an inner maintenance basin with a shiplift. Accommodation, administration and support facilities occupy the land area immediately S of the base. The main harbour area is marked by light-buoys (lateral).

Currents in this area are weak and variable being much influenced by the local winds, average rates are of the order of ¼ kn, but may increase to about ¾ kn in July and August. There is a slight predominance of SE currents which becomes more noticeable between April and October.

2 **Tidal stream.** Due to the complex nature of the tidal flows in this area the tidal streams are difficult to predict. A diurnal stream flowing SE/NW, with a maximum spring rate of just over ½ kn, may be encountered in addition to the variable currents.

Tidal seiche. A significant semi-permanent seiche occurs inside the naval base; the seiche has a period of 20 minutes and an amplitude of 10 cm to 20 cm depending on the prevailing weather conditions and tidal cycle; see *The Mariner's Handbook NP 100.*

3 **Landmarks:**

A conspicuous minaret (yellow ochre coloured with a white balcony and green cupola; 28 m high) (23°48′·6N 57°33′·2E) is sited close to the coast near the centre of Wudām Sahil (3.146); it is the only conspicuous mosque within the village.

A conspicuous refit shed (yellow ochre coloured building; radar conspicuous) (23°49′·3N 57°31′·4E) stands close SSW of the maintenance basin (3.152). Water towers and a radio tower (obstruction lights) stand in the immediate vicinity of the port.

4 A large light yellow fort (23°51′·0N 57°26′·4E) with towers at its centre and each corner, and a flagstaff on the highest tower, stands in the middle of As Suwayq.

Two well defined hills (23°42′N 57°13′·E), light yellow in colour, 332 and 464 m high, show up well against the dark mountains inland when the sun is shining on them.

Other aid to navigation

3.150

1 **Racon:**

N Breakwater Head Light (23°49′·9N 57°32′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

3.151

1 **Outer leading line.**

Front beacon (black pile, orange diamond topmark, 6 m high) (23°49′·1N 57°32′·2E); another beacon (black, 6 m high) stands close E.

Rear beacon (similar structure) (500 m farther SSW) stands close SE of the root of the S breakwater.

From the vicinity of the fairway light-buoy (safe water, pillar) (23°50′·8N 57°33′·0E), the alignment (204¼°) of these beacons, and by night the white sector (204°–205½°) of the light exhibited from the rear beacon, leads just over 1 mile SSW to a position E of the N Breakwater Head, through a channel marked by light-beacons (lateral).

2 **Inner leading line.**

Front beacon (black pile, white diamond topmark) (23°49′·8N 57°31′·5E) standing in the NW corner of the inner basin.

Rear beacon (similar structure, 6 m high) (200 m farther W) standing on the W side of the elbow of the N Breakwater.

The alignment (270¼°) of these beacons, and at night the white sector (268¾°–270¾°) of the light exhibited from the front beacon, leads 8 cables W into the inner harbour, through a channel marked by light-beacons (lateral).

Basins and berths

3.152

1 **Inner basin.** A non-tidal inner maintenance basin, entered through a gate situated at WNW end of the Operational Jetty, is used for support, maintenance and refits by the Oman Navy. The basin is dredged to a depth of 7 m, with a least depth over its entrance sill of 6·3 m. A shiplift is situated in the mid-part of the head of the basin; red lights are exhibited from the buildings S of the shiplift.

Operational Jetty. 340 m in length with alongside depths of 7 m is situated in the central part of the inner harbour, the jetty is aligned parallel to the shore to which it is connected by the E and W sides of the maintenance basin; lights (grey metal masts, 3 m high) are exhibited from each end of the jetty.

2 **Pontoon piers** numbered 1 to 4 from N, extend ESE from the E side of the maintenance basin into the SE part of the harbour. Except for the pier berth on the N side of No 1 pontoon, which has an alongside depth of 6·5 m, all others have alongside depths of 4 m. A work-boat berth, No 5 pontoon, extends from the shore immediately S of the main pontoon berths; a light (red square topmark on black pile) is exhibited from its E end.

Mooring buoy. A mooring buoy is laid in the E part of the harbour.

Port services

3.153

1 **Repairs.** Shiplift of 5750 tonnes capacity; repair and maintenance facilities.

Anchorages

Chart 3523

Khaḑrā’ Yāl Bū Rashīd

3.154

1 **Description.** The village of Khaḑrā’ Yāl Bū Rashīd (23°53′N 57°20′E) together with Aş Şuraymah, extend along 1 mile of the shore 10 miles W of Said Bin Sultan Naval Base (3.146); a fort with two partly ruined towers stands in the centre of the village. Discoloured water extending up to 2½ miles from the shore has been observed; the area has not been fully surveyed, see chart source data diagram.

Anchorage can be obtained off Khaḑrā’ Yāl Bū Rashīd in a depth of about 7 m with the fort bearing 182°, distant 9 cables.

Chart 2851

Şaḩam

3.155

1 **Description.** Şaḩam (24°12′N 56°53′E), 5 miles NW of Muqay’īf (3.143), is a large town with a number of white concrete buildings including a 137 m high tower and a low square fort with two low towers best identified on a WSW bearing. The top of the high tower, which stands 900 m S of the fort, is in ruins and is visible from S but not from

N; at the N end of the town stands a prominent minaret. The town extends for 1 mile along the coast, but it is difficult to identify owing to the date palms growing immediately behind it; the village of Şuwayḩirah lies between Şaḩam and Aş Şuḩār (3.156).

2 **Anchorage** can be obtained in a depth of about 10 m, 9 cables NE of the fort at Şaḩam.

Aş Şuḩār

3.156

1 **Description.** Aş Şuḩār (24°23′N 56°44′E) is a modern town, standing among palm groves, which straggles N from a fort in the middle of which grow several large trees. A prominent square tower, 33m high, stands within the town and is visible from seaward from about 15 miles before the date groves are sighted, which then appear to be continuous in this area.

2 **Anchorage** can be obtained 1 mile off Aş Şuḩār in a depth of 9 m, sand; depths shoal gradually towards the coast. Landing, except under calm conditions, is bad due to surf on the sandy beach. Anchorage has been obtained with the fort at Aş Şuḩār bearing 220°, 9 cables distant, in a depth of about 7 m; and again with the same building bearing about 245°, 7 cables distant, in a depth of 5·5 m. This latter anchorage berth may be approached with Hūra Bargha (3.144) in line with the fort, bearing 250°.

RA'S ŞALLĀN TO FUJAIRAH

General information

Charts 2851, 3520

Route

3.157

1 From a position ENE of Ra's Şallān (24°25′N 56°43′E) the route leads NNW for 45 miles to a position E of Fujairah (25°11′N 56°22′E).

Topography

3.158

1 The Ash Shumaylīyah (3.127) region of the United Arab Emirates commences near the village of Khaţmat Malāḩah (24°58′·7N 56°21′·7E), close to a dark ridge of hills which slope down to the coast; these hills then extend 40 miles N to include the town of Dibā (25°36′N 56°17′E). The immediate hinterland is a narrow coastal plain on which, in places, the mountains slope towards the coast forming cliffs. Fāsiqah, a straggling village with a fort standing on a slight rise at its N end, lies between Aş Şuḩār (3.156) and Majīs (3.165), close N of Ra's Şallān (24°25′N 56°43′E); another fort among date palms stands in the rear part of the village; see 3.128.

Principal marks

3.159

1 **Landmark:**

Jabal Shaykh (24°28′N 56°26′E), a peak of a darker colour than Hūra Bargha (3.144), stands out well against the background of the mountain range.

Major lights:

Port of Fujairah Light (25°10′·8N 56°21′·0E) (3.195).

An aero light (25°11′·4N 56°20′·3E) exhibited NW of Fujairah (3.195).

Other aid to navigation

3.160

1 **Racon:**

Sohar Light-buoy (24°32′·2N 56°37′·7E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.145)

3.161

1 From a position ENE of Ra's Şallān (24°25′N 56°43′E) the track leads NNW, passing:

ENE of Port Sohar (24°32′N 56°35′E); Al Liwa is situated a short distance inland, close NW. Thence:

ENE of Shināş (24°45′N 56°28′E) (3.168), thence:

ENE of the small harbour of Khawr Kalbā (25°02′N 56°22′E) (3.170), thence:

E of Fujairah (25°11′N 56°22′E) (3.174).

(Directions for entrance to Persian Gulf continue at 3.228 for Fujairah at 3.197)

Port Sohar

Chart 2851

General information

3.162

1 **Position and function.** Port Sohar (24°32′N 56°35′E) is an artificial harbour on the E coast of Oman; the port is a free trade area and handles general cargo, containers and oil exports.

Topography. See 3.158.

Approach and entry. The port is approached from the vicinity of the light-buoy (safe water) (24°32′·2N 56°37′·7E) through a channel, marked by light-buoys (lateral), passing between breakwaters from which lights are exhibited; C1 Light-buoy (port hand) is moored close S of the outer breakwater head, C2 light-buoy (starboard hand) is moored close SSE of the inner head.

2 **Traffic.** In 2004 the port was used by 39 vessels with a total dwt of 731 475 tonnes.

Port Authority. Sohar Industrial Port Company, PO Box 336, Postal Code 325, Liwa, Oman.

Limiting conditions

3.163

1 **Controlling depth.** There is a least depth in the entrance channel of 15·6 m.

Deepest and longest berth. The main quay is over 900 m long with alongside depths of 16 m (2002).

Tidal levels. Mean spring range about 1·8 m; mean neap range about 0·9 m; see *Admiralty Tide Tables Vol 3.*

Density of water is 1·035 g/cm^3.

Arrival information

3.164

1 **Notice of ETA required.** Send ETA 72 and 24 hours prior to arrival and confirm 4 hours before arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Anchorage may be obtained in anchorage A centred on 24°35′N 56°41′E or B centred on 24°34′N 56°43′E; areas of foul ground lie between the anchorages and the port

2 **Pilotage** is compulsory for all vessels except naval, government and other exempted vessels; pilot boards in position 24°33′·3N 56°37′·7E; see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

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Restricted area. A restricted area lies seaward of the port; vessels must not enter this area without a pilot on board.

Harbour

3.165

1 **General layout.** The port is entered from N between breakwaters, open NW; the main berthing area lies in the S of the harbour; a small fishing harbour is entered from E close N of the port.

Majīs Jetty, used for the export of copper, extends about 1400 m NE from the shore close S of the main port and can handle vessels up to 10 000 dwt; it is operated by the Oman Mining Company. Lights are exhibited from each end of the jetty head.

2 **Development.** The port is a new port with works in progress (2004).

Landmark:

A fort, which can be easily identified by a prominent house with five arches and a tower, stands close S of the town of Al Liwa (24°32′N 56°34′E).

Other aid to navigation

3.166

1 **Racon:**

Sohar Light-buoy (24°32′·2N 56°37′·7E).

See *Admiralty List of Radio Signals Volume 2.*

Berths

3.167

1 There are eight numbered berths (2005) situated in the SW part of the harbour; berth Nos 1 and 2 are 225 m in length; the port authorities should be contacted for the latest information.

Anchorages and harbours

Shināş

3.168

1 **Description.** Shināş (24°45′N 56°28′E) is a small town on the coast which, except from the N, shows up well against a background of trees; a bare stretch of sand extends 2 miles S from the town. A large square fort stands 3½ miles S of the town, immediately in front is a large white house easily identified during the forenoon when lit by the sun. The N tower of the fort is a good mark from N, but difficult to distinguish when seen against the background of trees from S; from SE the fort presents a long low front, but from ENE it is visible from a considerable distance. A creek entered 1¼ miles N of the town extends parallel with the coast along the whole of the town's frontage, dhows are usually seen lying in the creek both N and S of the town. The entrance can be identified by the break in the date palms which appears prominent when bearing less than 300°.

2 A fishing harbour, protected by two breakwaters, has been constructed at Shināş; lights (lateral) (metal posts), (24°44′·9N 56°28′·5E) are exhibited from the heads of the breakwaters.

Anchorage may be obtained 9 cables ENE of the large square fort, in a depth of 9 m; anchorage may also be obtained off the mouth of the creek N of the town, in a depth of 9 m; depths then shoal gradually towards the coast. Landing can be effected in the creek at HW, but it is difficult with onshore winds owing to the surf and the shelving beach.

Al Murayr

3.169

1 **Description.** Al Murayr (24°56′N 56°23′E) is a village with three large towers, two at its N end and one at its S; 1 mile S of the village there is a large fort with two ruined towers; the Al Bāţina region (3.127) of Oman ends 1 mile N of Al Murayr. Al Bulaydah, 6 miles S of Al Murayr, is a small town backed by date palms; a fort, with a tower at its S end, appears to be in the centre of the town when viewed from NE; a low stone building, with four arches, stands in front of the fort. A light coloured stone tower at the S end of Al Bulaydah, N of a gap in the date palms, presents a good mark.

2 **Anchorage** can be obtained with the large fort S of Al Murayr bearing 210°, just over 1 mile distant, in a depth of 9 m.

Charts 2851, 3520

Khawr Kalbā

3.170

1 **Position.** Khawr Kalbā (25°02′N 56°22′E) is a small port 9 miles S of Fujairah (3.174); a fort stands on the NW side of the village and a large round tower in its centre. A radio mast (25°02′·7N 56°18′·6E) stands 3 miles WNW of the village.

Controlling depth. The entrance is dredged to a depth of 4·6 m over a width of 30 m; depths of about 5·0 m lie close seaward of the entrance.

2 **General layout.** The port lies at the mouth of a small creek which has been dredged and developed to form a harbour; a small village lies on its N side. Two breakwaters extend 900 m E from each side of the mouth of the creek forming a 100 m wide the entrance. Within the harbour the channel leads 7 cables SSW to a turning area dredged to 6 m. The E side of the channel is reclaimed land, about 2 m high, fortified by a sea wall which extends S from the root of the S breakwater as far as a small hill near the S end of the harbour.

3 **Berths.** A fish-meal factory wharf lies abreast the turning area on the W side of the channel; a second wharf, 100 m in length with an alongside depth of 1·8 m, lies on the W side of the channel close S of the village.

Chart 3526

Kalbā

3.171

1 **Description**. Kalbā (25°05′N 56°21′E) is a large village, with a fishing harbour close E, situated 6 miles S of Fujairah (3.174); a dense date grove extends 2½ miles N to an almost bare sandy patch. A large square building within the village resembles a castle with a remarkable square tower and can be identified from seaward on WNW bearings from a distance of 15 miles. The harbour is protected by breakwaters open to N with a least depth in the entrance of of 3·5 m; a light is exhibited from the head of the outer breakwater.

2 **Kalbā waiting anchorages.** Waiting anchorage area A is centred lies about 3½ miles E of Kalbā (25°05′N 56°21′E) (3.171) outer breakwater head; anchorage area B lies about 6½ miles ESE of the breakwater; see 3.188.

Al Rughailat

3.172

1 **Description.** Al Rughailat Fishing Harbour (25°06′N 56°22′E), 4 miles S of Fujairah (3.174) and 1½ miles N of Kalbā, is a new artificial harbour, dredged to 2 m, entered from N. Lights (lateral) are exhibited from the heads of the breakwaters.

2 **Inshore fishing zone.** An inshore fishing zone extends 2 miles off the coast from N of Al Rughailat to Ghurfah, 3 miles N; see 3.5.

Ghurfah

3.173

1 **General information.** Ghurfah Harbour (25°08′N 56°21′E) is situated 1 mile W of the town of Fujairah, the administrative centre for the region. The harbour is the base for the Fujairah International Marina Club. The town stands on the W side of the harbour amongst a number of date palms; on a small hill on the NW side of the town stands a prominent fort with towers.

Approach and entry. The harbour is entered from N through a narrow entrance, 85 m wide, between protecting breakwaters.

Port Authority. Ghurfah Harbour is under the jurisdiction of The Port of Fujairah Authority (3.179).

2 **Controlling depth.** The main harbour area is dredged to a least depth of 2·7 m.

Useful marks:

Ghurfah Light (25°07′·8N 56°21′·6E) is exhibited from the head of the longer outer breakwater; another light, close SW, is exhibited from the short inner breakwater head.

Radio masts (red lights) (25°07′·8N 56°21′·0E) stand 1000 m W of the harbour entrance, the larger mast is conspicuous; another mast, 137 m high, stands 2½ miles W.

3 A conspicuous tower block (25°08′·1N 56°21′·2E) stands near the coast NW of Ghurfah Light and a conspicuous building 1450 m N.

Inshore fishing zone. See 3.5 and 3.172.

FUJAIRAH

General information

Charts 3520, 3526

Position

3.174

1 The United Arab Emirates Port of Fujairah (Fujayrah) (25°11′N 56°22′E) is situated on the W side of Gulf of Oman, 80 miles S of the Strait of Hormuz.

Function

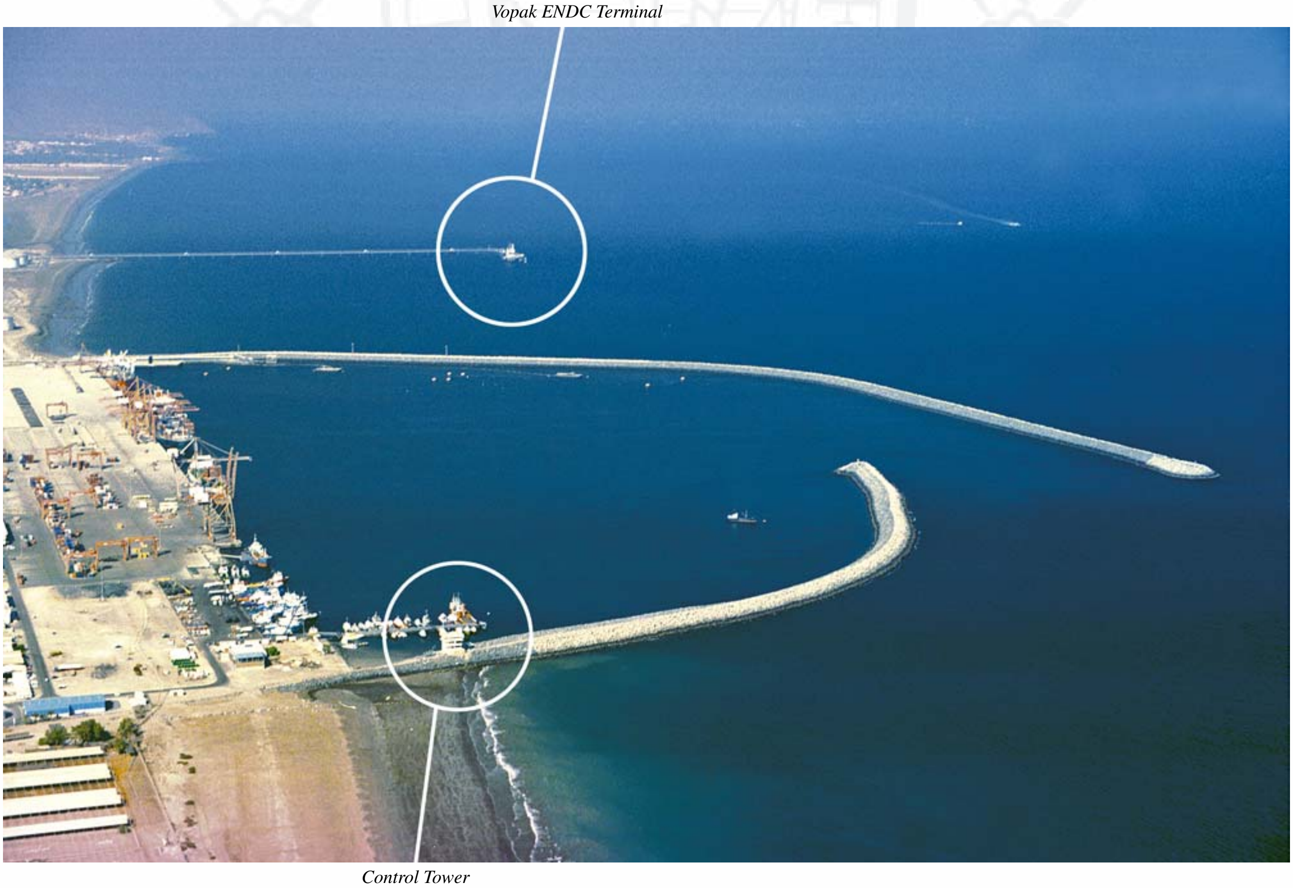
3.175

1 The port is a relatively new harbour completed in 1982 as a major container port, but also handling general and bulk cargoes; a specialised livestock terminal has been constructed at the S end of the port. Fujairah is the major port of the United Arab Emirates with direct access to Gulf of Oman.

Topography

3.176

1 From the port area to Khawr Fakkān, 11 miles N, the coast is backed by hills rising to heights of between 200 and 900 m, conforming with the general topography of the area. See 3.158.



Fujairah (3.174)

(Original dated 2002)

(Photograph – K Phillips)

Hazard

3.177

1 See 3.6.

Traffic

3.178

1 In 2004 the port was used by 925 vessels with a total dwt of 31 559 394 tonnes.

Port Authority

3.179

1 Fujairah Port Authority – Port Ops, PO Box 787, Fujairah, United Arab Emirates.

Inshore fishing zone

3.180

1 See 3.5 and 3.172.

Limiting conditions

Controlling depth

3.181

1 The approach channel and the central part of the main harbour area are dredged to a depth of 15 m (2000).

Mean tidal levels

3.182

1 Mean spring range about 1·8 m; mean neap range about 1·0 m; see *Admiralty Tide Tables Vol 3.*

Density of water

3.183

1 Density 1·025 gms/cm^3.

Maximum size of vessel handled

3.184

1 Vessels of up to 275 m in length on a maximum draught of 12·5 m can be accepted.

Arrival information

Port operations

3.185

1 At the container berths movements are restricted. Vessels with a draught of 11·5 m may be moved at any time; vessels with a draught between 11·5 and 12 m may only be moved from 5 hours before to 4 hours after HW; vessels with a draught in excess of 12 m may only be moved at a time agreed with the Harbour Master.

Notice of ETA

3.186

1 Vessels should give notice of their ETA 72 hours, 24 hours and 12 hours in advance of arrival through their agent. ETA should be confirmed when within range of the port control on VHF.

See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

3.187

1 Waiting anchorages, shown on the chart, are situated NE and E of the harbour entrance. Vessels intending to use these anchorages must establish contact with the port radio before approaching within 4 miles of the coast and request their anchoring instructions; they should maintain a continuous listening watch on VHF channel 16. Anchoring is prohibited between Fujairah waiting anchorages and the shore.

2 **Anchorage areas.**

With reference to the harbour entrance:

Area	*Position*	*Purpose*
A	9½ miles NE	Vessels awaiting orders.
B	8½ miles ENE	Bunkering and ship to ship services.
C	5¼ miles ENE	Offshore services.
D	11½ miles NE	Vessels with explosives, hazardous cargoes and LNG/LPG vessels.
S	8 miles E	
V	4 miles ENE	Vessels inbound for Vopak ENOC Terminal.
W	4¼ miles E	Waiting anchorage.

3 **Traffic.** In 2001 the anchorage was used by 5456 vessels with a total dwt of 537 355 871 tonnes.

3.188

1 **Kalbā waiting anchorages** lie E of Kalbā (25°05′N 56°21′E); see 3.171.

With reference to Kalbā harbour entrance:

Area	*Position*	*Purpose*
A	3½ miles E	Vessels of less than 120 m; bunkering and offshore services.
B	6½ miles ESE	Vessels of more than 120 m; bunkering and offshore services.

For further waiting anchorages see 3.239.

Traffic. In 2004 Kalbā waiting anchorages were used by 18 vessels with a total dwt of 164 516 tonnes.

2 **Prohibited anchorage.** Anchorage is prohibited within 4 miles of the coast between Fujairah anchorages and the shore; anchorage is also prohibited in an area of submarine cables laid from the shore between the parallels of 25°06′·5N and 25°09′·5N. See 3.240.

Pilotage

3.189

1 Pilotage is compulsory and available day and night; requests for a pilot should be made 24 hours in advance. The pilot boards in the vicinity of 25°09′·4N 56°22′·7E, 1¼ miles SE of the harbour entrance.

Deep sea pilots

3.190

1 Pilots for passage through Persian Gulf see 2.2.

Tugs

3.191

1 Tugs are available.

Traffic regulations

3.192

1 **Recommended direction of traffic flow.** In the port approaches the recommended direction of traffic flow does not follow normal convention. Vessels entering or leaving the port are required to pass starboard to starboard, as indicated on the chart, contrary to normal accepted practice. This is to ensure inbound vessels have sufficient time to establish the line of the directional light-beacon before passing between the outer breakwater heads, whilst outbound vessels may turn immediately to port on clearing the N breakwater head. Mariners are advised to proceed with particular caution when approaching the port.

2 **Prohibited anchorage.** Anchorage is prohibited within the territorial waters of the Emirate of Shārjah between the

parallels of 25°00′N and 25°06′N, but it is allowed off the port in the designated anchorages with the permission of the Harbour Master. These territorial waters are regularly patrolled by Coastguard vessels. See 3.240.

Movements of double-banked vessels, meetings between vessels underway, or between vessels underway and service boats, is strictly prohibited in the waiting anchorages. In order to prevent the unauthorised movement of personnel and goods, all boat movements, between vessels at anchor off the port and within the port area, between the hours of 2100 and 0600, are prohibited without proper authority.

3 **Restricted area.** See 3.213.

Harbour

General layout of harbour

3.193

1 The harbour comprises an artificial basin, protected by breakwaters, entered from the S through a 215 m wide entrance. Seven main commercial berths are situated on the W side of the basin; two tanker mooring berths lie in its N part, close off the N breakwater.

Two mooring buoys (yellow) are laid off the W side of the S breakwater.

Local weather

3.194

1 Fujairah has a sub-tropical, arid climate, between December and March it is pleasant with temperatures ranging from 10°C to 20°C; between May and October temperatures rise to between 38°C and 48°C. Humidity can be as high as 97% on the coast, dropping sharply inland; however, at night the temperatures may drop below 20°C. The *shamāl* has a moderating effect on the temperature in summer, but it is frequently laden with dust and sand, and at times the air becomes so hazy that the sun is reduced to a pale disc. A seasonal breeze between May and October helps to reduce the harsh heat. Rainfall is infrequent and irregular, coming mainly during the winter in occasional local thunderstorms; it rarely exceeds 13 cm per year although rainfall levels in the mountain regions are higher.

Principal marks

3.195

1 **Landmarks:**

Two conspicuous tanks (position approximate) (25°11′·4N 56°21′·2E), marked by a beacon, stand close W of the root of the N harbour breakwater.

A radio mast (red lights) (25°12′·5N 56°20′·3E) rises to an elevation of 404 m NW of the port area; the mast is reported to be visible for distances of more than 30 miles.

The container gantry cranes (25°10′·6N 56°21′·5E) serving the container terminal on the W side of the harbour are conspicuous.

2 **Major lights:**

Port of Fujairah Light (white lattice tower, 5 m high) (25°10′·8N 56°21′·0E) exhibited from high ground W of the harbour area. Obstruction lights are exhibited on a radio mast (position approximate) 2½ miles SW.

An aero light (red and white tower) (25°11′·4N 56°20′·3E) exhibited NW of the harbour.

Murbaḩ (Merbȩh) Light (red and white metal trestle structure, 37 m high) (25°15′·6N 56°22′·0E) exhibited from a position on the coast, close S of the village of Murbaḩ (3.229).

Other aid to navigation

3.196

1 **Racon:**

Port of Fujairah N Breakwater Head Light (25°10′·5N 56°22′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

3.197

1 See 3.192. From the vicinity of 25°08′N 56°30′E the track leads 6 miles W in the designated approach channel to a position 2½ miles SE of the port entrance; thence 1½ miles WNW to the pilot boarding position 5 cables E of Fairway Light Buoy (port hand). The harbour is entered in the white sector (346½°–349½°) of a directional light (low concrete pedestal) exhibited from the N breakwater, close NW of the knuckle. Lights (lateral) (white bands, 4 m high) are exhibited from the heads of the N and S breakwaters.

Berths

Alongside berths

3.198

1 **Container berths** numbered 1 to 7, form the main alongside berths of the port, all the berths are on the W side of the harbour basin and are approached through an area dredged to 12·5 m; the berths are between 169 to 205 m in length, with depths alongside between 10·0 and 13·5 m.

Ro-Ro berth. Ro-Ro vessels may use the main container quay, however; there are no special facilities.

2 **Quay.** A quay, 280 m in length with alongside depths of 7 m, lies in the SW part of the harbour and is approached through an area dredged to 7 m. A light-buoy (port hand) marks the SE corner of this dredged area.

Tanker berths

3.199

1 Tanker berths numbered 1 and 2, are situated on the N side of the harbour basin and consist of eight mooring buoys numbered B1 to B8. A light-buoy (starboard hand) lies close off the SW side of the breakwater knuckle and SE of the tanker berths. An area of floating hoses may be encountered between the berths and the breakwater.

Port services

Facilities

3.200

1 Hospital; minor repairs may be undertaken; underwater hull cleaning and repair services available; deratting exemption certificates issued.

Supplies

3.201

1 Fresh water; fresh provisions; limited quantities of stores; fuel oil (alongside or by barge; 48 hours notice required); oily waste reception facilities.

Offshore ship supply service

3.202

1 An ship supply service operates out of the port which will arrange a rendezvous along the parallel of 25°10′N. The service is maintained by the Gulf Agency Company whose operational base is at Dubayy International Airport; see 1.13 and 3.254.

Communications

3.203

1 Fujairah International Airport 5 km distant; Dubai International Airport may be reached in about 1½ hours travel by road.

Harbour regulations

3.204

1 Pollution control regulations prohibit the discharge of any oil, ballast, bilge water or garbage within the port and within its waters. It is prohibited to discharge any waste to service boats in the port, or the anchorage; there are no reception facilities for oily waste or garbage.

VOPAK ENOC TANKER TERMINAL

General information

Chart 3526

Position and function

3.205

1 Vopak ENOC Tanker Terminal (25°12′N 56°22′E) lies 1½ miles NNE of Fujairah (3.174) on the W side of Gulf of Oman; it is the main oil exporting facility for the United Arab Emirates in Gulf of Oman.

Approach and entry

3.206

1 The terminal has a open approach from E.

Traffic

3.207

1 In 2004 the port was used by 18 vessels with a total dwt of 274 857 tonnes.

Port Authority

3.208

1 Vopak ENOC Fujairah, PO Box 1769, Fujairah, United Arab Emirates.

Limiting conditions

Controlling depth

3.209

1 No 1 Berth is approached through an area dredged to 17 m (1997); the SBM has depths in its immediate vicinity in excess of 23 m.

Deepest and longest berth

3.210

1 No 1 Berth has alongside depths of 18 m (1997).

Arrival information

Port operations

3.211

1 Berthing is undertaken during the hours of daylight only; arriving tankers must be at the pilot station at least 1 hour before sunset; unberthing 24 hours.

Pilotage

3.212

1 Pilotage is compulsory and available day and night; pilot boards in the vicinity of 25°11′·0N 56°24′·3E, 1½ miles ESE of the fairway light-buoy.

Restricted area

3.213

1 A restricted area, in which anchoring and fishing are prohibited, extends E from the shore enclosing Vopak ENOC Tanker Terminal and the SBM; mariners are requested to keep clear of the area.

Inshore fishing zone

3.214

1 An inshore fishing zone extends 2 miles off the coast from a position about 1 mile N of Vopak ENOC jetty to Jabal Ra's, 7 miles N; see 3.5.

Harbour

General layout

3.215

1 The main terminal consists of an L-shaped jetty with off-lying dolphins forming two alongside berths. Light buoys mark the NW and SW edges of the dredged area seaward of No 1 Berth. A shoal patch, with a least depth of 9·6 m, lies close S of the S light-buoy of a line of buoys moored E of the 10 m contour in the approach to No 2 Berth.

Vopak ENOC Offshore Oil Terminal (25°13′N 56°23′E) SBM is moored in a depth of 25 m; a submarine pipeline connects the terminal with the shore, landing close N of the main terminal; see 1.17.

Principal marks

3.216

1 **Landmarks:**

See 3.195.

3.217

1 **Major lights:**

See 3.195.

Other aid to navigation

3.218

1 **Racon:**

See 3.196.

Directions

3.219

1 From the pilot boarding position No 1 Berth is approached from SE, passing NE of a light-buoy (E cardinal) (25°11′·5N 56°22′·6E), and NE of the light-buoys marking the SW edge of the dredged area. No 2 Berth is approached passing clear of the E cardinal light-buoy and SW of the light-buoys marking the SW edge of the dredged approach to No 1 Berth; and E of the shoal patch, with a least depth of 9·6 m, and the light-buoys moored close E of the 10 m coastal depth contour.

2 **Useful mark:**

A light (pipe on support structure on piled walkway) is exhibited from a position near the knuckle of the main jetty joining the terminal with the shore.

Berths

3.220

1 No 1 Berth, the outer berth, has a berthing face of 60 m from which breasting and mooring dolphins extend N and S; the berth has an alongside depth of 18 m; a light (pipe on dolphin, 8 m high) is exhibited from the N-most dolphin. No 2 Berth, the inner berth has a berthing face of 35 m from which breasting and mooring dolphins extend N and S; a light (pipe on dolphin, 8 m high) is exhibited from the S-most dolphin.

Vopak ENOC Offshore Oil Terminal SBM (light) lies in open water 1 mile ENE of the main jetty.

Port services

3.221

1 See 3.200.

FUJAIRAH TO KHAWR FAKKĀN

General information

Chart 3526

Route

3.222

1 From a position E of Fujairah (25°11′N 56°22′E) the route leads N for 10 miles to a position E of Şīrat al Khawr (25°21′N 56°23′E).

Topography

3.223

1 See 3.158 and 3.176.

Depths

3.224

1 Depths in the area NE of Khawr Fakkān (25°21′N 56°22′E) and W of Ra’s Dibā (25°35′·9N 56°21′·3E) are from open sounded exploratory surveys. Uncharted shoals may exist within these areas and in the largely unsurveyed areas SW of the first area, and N of the second; see chart source data diagrams.

Principal marks

3.225

1 **Landmarks:**

See 3.195.

3.226

1 **Major lights:**

See 3.195.

Other aids to navigation

3.227

1 **Racons:**

Port of Fujairah N Breakwater Head Light (25°10′·5N 56°22′·1E).

Khawr Fakkān Fairway Light-buoy (25°22′·7N 56°22′·7).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.161)

3.228

1 From a position E of Fujairah (25°11′N 56°22′E) the track leads N, passing:

E of Vopak ENOC Tanker Terminal (25°12′N 56°22′E) (3.205), thence:

E of Murbaḩ (Merbȩh) Light (25°15′·6N 56°22′·0E) (3.195) exhibited from a position close S of the village of Murbaḩ, thence:

2 E of Jabal Ra’s (25°19′·6N 56°22′·6E) the summit of a conspicuous cliff which projects from the coast between the village of Murbaḩ and Khawr Fakkān (3.230). Jabal Khawr Fakkān, 8 cables NW, forms the highest point of the feature. Thence:

E of Şīrat al Khawr (25°21′N 56°23′E), a peaked islet, 83 m high, which lies in the SE approach to Khawr Fakkān; see 3.244.

(Directions continue at 3.261)

Harbour

Murbaḩ

3.229

1 **Description.** Murbaḩ (Merbȩh) Fishing Harbour (25°16′N 56°22′E) is situated a short distance S of the village of Murbaḩ (Merbȩh), 5 miles N of Fujairah (3.174), and is open to NNE; Murbaḩ Fishing Harbour Light (post) (26°16′·0N 56°22′·3E) is exhibited from the head of the E and main breakwater.

Port Authority. Murbaḩ Fishing Harbour is under the jurisdiction of The Port of Fujairah Authority.

2 **Hazard.** A sea water inlet, with a least depth over it of 2·5 m, extends 2 cables from the shore 2 miles N of the entrance.

Inshore fishing zone. See 3.5 and 3.214.

KHAWR FAKKĀN

General information

Chart 3526 plan of Khawr Fakkān

Position and function

3.230

1 Khawr Fakkān (25°21′N 56°22′E) is situated in the United Arab Emirates on the W side of Gulf of Oman, 70 miles S of the Strait of Hormuz; the port is used as a container trans-shipment port for destinations within Persian Gulf.

Traffic

3.231

1 In 2004 the port was used by 2145 vessels with a total dwt of 48 771 552 tonnes.

Port Authority

3.232

1 Sharjah Ports Authority, PO Box 10542, Khawr Fakkān, United Arab Emirates.

Limiting conditions

Controlling depth

3.233

1 The immediate approaches to the port, and the outer port area off No 1 Berth, are dredged to a depth of 14·6 m (1998); see 3.224.

Mean tidal levels

3.234

1 Mean spring range about 1·8 m; mean neap range about 1·0 m; see *Admiralty Tide Tables Vol 3.*

Density of water

3.235

1 Density 1·025 gms/cm^3.

Maximum size of vessel handled

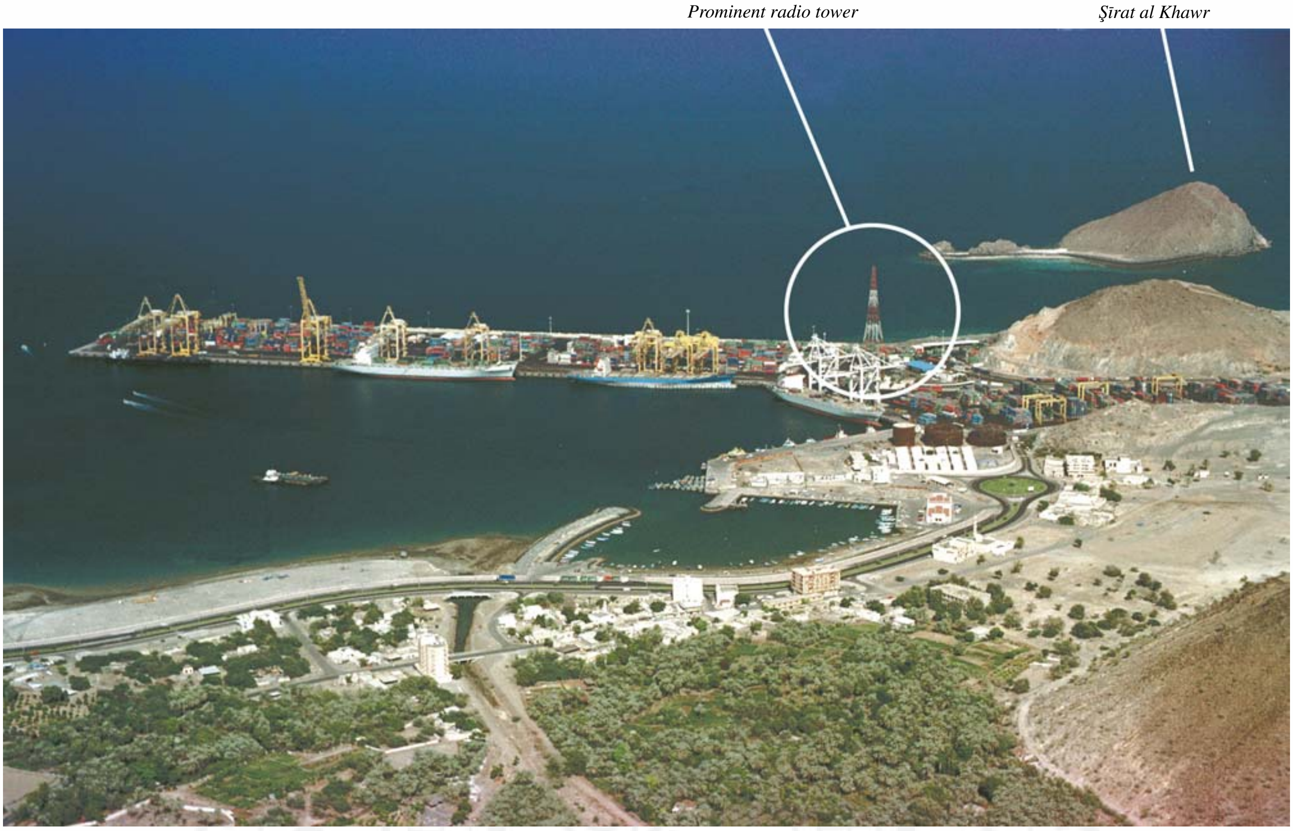
3.236

1 Vessels up to a maximum draught of 15 m can be accepted; there is no length restriction.

Local weather

3.237

1 Prevailing winds are between E and ESE.



Khawr Fakkān (3.232)

(Original dated 2002)

(Photograph – K Phillips)

Arrival information

Notice of ETA

3.238

1 Vessels should give notice of their ETA to their agents, port control and the port operator 72 hours, 48 hours and 24 hours in advance of their arrival. On approach a vessel should call port control when at 10 miles, 5 miles and 2 miles.

See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

3.239

1 Three anchorage areas have been established in the approaches to the port; positions with reference to the breakwater head..

Area	*Position*	*Purpose*
A	2 miles ENE	Inbound vessels less than 120 m in length and minor vessels only
B	4 miles ESE	Inbound vessels more than 120 m in length; E of 56°26′E vessels of less than 120 m requiring bunkering and/or offshore services
C	6 miles ENE	Vessels more than 120 m requiring bunkering and/or offshore services

2 See also 3.187.

Regulations concerning entry

3.240

1 Anchorage within the territorial waters of Shārjah between 25°19′·5N and 25°24′·8N is limited to vessels proceeding to the port, or to vessels requiring certain services or the facilities of the port. Large tankers are not permitted to anchor within 10 miles of the coast.

Inshore fishing zone. See 3.5 and 3.214.

Pilotage

3.241

1 Pilotage is compulsory for vessels over 150 nrt; pilots available day and night and board 5 cables S of the fairway light-buoy (25°22′·7N 56°22′·7E) (3.249).

Deep sea pilots

3.242

1 Pilots for passage through Persian Gulf see 2.2 and 3.190.

Tugs

3.243

1 Tugs are available.

Restricted area

3.244

1 A restricted area of works in progress (2004), into which entry is prohibited, lies E of the port enclosing the island of Ṣīrat al Khawr (3.228).

Harbour

General layout of harbour

3.245

1 The port, a natural deep water harbour, is situated in S part of Khawr Fakkān; Ra's Lūlayyah (25°22′N 56°21′E), a rocky point 1 mile NW of the port area, forms the N entrance point to both the port and the bay. The harbour comprises an outer protective mole, which extends 800 m from a hill, 78 m high, which originally formed the S

entrance point to the bay. The inner side of the breakwater forms the main berthing area; further berths, including a cement jetty, are situated in its S part. The outer harbour is dredged to 14·6 m and the inner to 11·6 m; the W edge of the dredged area is marked by light-buoys (starboard hand).

2 **Development.** See 3.244

Hazard

3.246

1 Fishing nets may be encountered NW of the fairway light-buoy (25°22′·7N 56°22′·7E); vessels should pass S of the buoy and avoid this area.

Principal marks

3.247

1 **Landmarks:**

A prominent radio tower (red and white framework structure) (25°21′·0N 56°22′·1E) stands near the root of the breakwater, close E of No 4 Berth. A water tower stands close E of the radio tower.

A prominent white market building (25°21′·3N 56°21′·1E) with five towers, stands on the SW foreshore of the bay; it is illuminated at night.

Jabal Sidr (25°22′·0N 56°20′·7E) is a prominent hill on which stands a conspicuous, illuminated, white palace with a red roof and a radio tower.

2 A conspicuous hotel (25°22′·3N 56°20′·9E) stands on the foreshore 3½ cables NE of Jabal Sidr; it is illuminated at night and a fixed red light is exhibited from the roof.

Major lights:

Port of Fujairah Light (25°10′·8N 56°21′·0E) (3.195).

Murbaḩ (Merbȩh) Light (25°15′·6N 56°22′·0E) (3.195).

Other aid to navigation

3.248

1 **Racon:**

Khawr Fakkān Fairway Light-buoy (25°22′·7N 56°22′·7).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

3.249

1 From the vicinity of the pilot boarding position 5 cables S of Khawr Fakkān Fairway Light-buoy (safe water, pillar) (25°22′·7N 56°22′·7) the track leads 1 miles SW to the dredged area N of the port.

Berths

3.250

1 Berths 1 to 4 are the main alongside berths; all the berths are on E side of the harbour and are approached through the dredged area; depths alongside vary between 11·6 and 14·6 m. A cement jetty is situated in the S part of the harbour.

Port services

Facilities

3.251

1 Hospital; engineering workshops; oily waste reception facilities; garbage disposal services and use compulsory; deratting exemption certificates issued.

Supplies

3.252

1 Fresh water available alongside (by barge 48 hours notice required); ship-chandler.

Communications

3.253

1 Shārjah International Airport 115 km; Fujairah International Airport 25 km.

Offshore ship supply service

3.254

1 A ship supply service operates from Khawr Fakkān, the supply vessel will usually meet vessels in the vicinity of 25°20′N 56°33′E; see 1.13 and 3.202.

KHAWR FAKKĀN TO DAWḨAT DIBĀ

General information

Chart 3520

Route

3.255

1 From a position E of Şīrat al Khawr (25°21′N 56°23′E) the route leads 15 miles N to a position E of Ra's Dibā (25°36′N 56°21′E).

Topography

3.256

1 The coast between Jazīrat Badīyah (25°25′·8N 56°22′·1E) and Ra's Dibā, 10 miles N, consists of rocky points alternating with sandy bays; mountains rise abruptly a short distance inland.

Depths

3.257

1 See 3.224.

Inshore fishing zone

3.258

1 An inshore fishing zone, extending up to 3 miles from the shore, has been established from a position 1 mile S of Jazīrat Badīyah (25°25′·8N 56°22′·1E) to Ra's Dibā, 10 miles N; see 3.5.

Principal mark

3.259

Major light:

Ra's Dibā Light (red and white metal structure, 37 m high) (25°35′·5N 56°21′·0E).

Other aid to navigation

3.260

1 **Racon:**

Khawr Fakkān Fairway Light-buoy (25°22′·7N 56°22′·7).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.228)

3.261

1 From a position E of Şīrat al Khawr (25°21′N 56°23′E) the track leads N, passing:

E of Khawr Fakkān Fairway Light-buoy (25°22′·7N 56°22′·7) (3.249), thence:

E of Lulayyah Fishing Harbour (25°24′N 56°22′E) (3.266), thence:

E of Jazīrat Badīyah (25°25′·8N 56°22′·1E), a small islet, 61 m high, connected to the shore by a causeway; a breakwater extends from the coast

5 cables S. Badīyah Harbour lies W of the islet; lights (lateral) are exhibited from its breakwater heads. Thence:

2 E of Jazīrat al Ghubbah (25°30′N 56°22′E) an islet, 19 m high, lying close off the coast; a small islet lies 6 cables S. Thence:

E of Ra's Ḑadnah (25°31′·2N 56°22′·3E); Jabal Ḑadnah Light (red and white trestle structure, 37 m high) is exhibited from a position 4 cables NW of the point. Ḑadnah Harbour is entered close N; lights (lateral) are exhibited from its breakwater heads. Thence:

3 E of Ra's Dibā (25°36′N 56°21′E), a projecting point of moderately high cliffs which forms the NE corner of the mainland in S approaches to Dawḩat Dibā; a light is exhibited inland from the point (3.259). A sandy bluff on the cliffs, 1 mile W of the point, is prominent from N, but from E is indistinguishable.

(Directions continue at 3.274)

Dibā Harbour

Charts 3171, 3520

General information

3.262

1 **Position.** Dibā Harbour (25°37′N 56°18′E) is situated within Dawḩat Dibā, 3 miles WNW of Ra's Dibā; Dibā town is in the SW corner of the bay.

Topography. Dawḩat Dibā is entered between Ra's Dibā (25°36′N 56°21′E) and Ra's Şawţ, 6½ miles NW; extensive date plantations grow in the valley S of the town of Dibā and along the shores of the bay; lush palm groves greatly obscure the town from seaward. An islet lies near the shore close inside the S entrance point to the bay.

2 **Approach and entry.** Vessels approaching Dibā Harbour should pass 5 cables E of the buoy (25°37′·6N 56°18′·0E) moored in the approaches to the port, 7 cables NNE of the E breakwater head.

Port Authority. Dibā Harbour is under the jurisdiction of Fujairah Port Authority.

Limiting conditions

3.263

1 **Depths** decrease regularly in Dawḩat Dibā to the sandy beach at its head; the bay has not been systematically surveyed, see chart source data diagram.

Maximum size of vessel handled. The harbour can accommodate vessels of up to 3 000 dwt.

Inshore fishing zone. See 3.5 and 3.258.

Arrival information

3.264

1 **Outer anchorage.** Anchorage can be obtained near the centre of the bay, 1¼ miles NNW of the entrance to Dibā Harbour, in a depth of 10 m, sand; in good weather landing by boat may be made on the beach.

Prohibited anchorage. An area in which anchoring is prohibited extends up to 12 miles offshore from the S part of Dawḩat Dibā to a position ESE of Jazīrat Badīyah (25°25′·7N 56°22′·1E).

Harbour

3.265

1 **General layout.** Dibā Harbour lies on the S side of Dawḩat Dibā; it is protected by two breakwaters from which lights (lateral) (post) are exhibited.

Dibā al Ḩişn (25°37′·3N 56°16′·5E) is a small fishing harbour protected by breakwaters; lights (lateral) (framework towers, 3 m high) are exhibited from its breakwater heads.

Dibā al Bay'ah (25°39′·1N 56°16′·2E) is a small harbour, entered 2½ miles NNW of Dibā Harbour, situated close SE of the village of Al Karshah; lights (lateral) (framework towers, 4 m high) are exhibited from the breakwater heads.

Harbour

Chart 3526

Lulayyah

3.266

1 **Description.** Lulayyah Fishing Harbour (25°24′N 56°22′E) is situated 1½ miles NNE of Ra's Lulayyah the N entrance point to Khawr Fakkān; the harbour is entered from N between breakwaters; a light (post) is exhibited from the head of the outer breakwater. A depth of 3 m lies close within the entrance; depths then shoal regularly towards a drying area; the harbour breakwaters are reported to be radar conspicuous. Zubārah is a small village a short distance N where the coast is low, sandy and bordered with date groves.

RU'ŪS AL JIBĀL AND MUSANDAM PENINSULA

GENERAL INFORMATION

Charts 2888, 3172

Area covered

3.267

1 This section describes the coastal passage around the Musandam Peninsula, and the anchorages and harbours from Dawḩat Dibā (25°38′N 56°17′E) to Ra's Ash Sha'm (26°04′N 56°05′E).

It is arranged as follows:

Ra's Şawţ to Ra's Dillah (3.270).
Musandam Peninsula – East Side (3.281).
Musandam Peninsula – North Side (3.288).
Musandam Peninsula – West Side (3.306).
Ra's Shaykh to Ra's Ash Sha'm (3.311).

Topography

3.268

1 Ru'ūs al Jibāl (26°00′N 56°15′E) is a great and mountainous promontory on the E side of Arabia bordered on its E side by Gulf of Oman and on its W by Persian Gulf; from its N part the Musandam Peninsula (3.282) extends N into the Strait of Hormuz. The coast of Ru'ūs al Jibāl is precipitous, cliffs in most places overhanging their base having been eroded by the action of the sea; mountains rise abruptly from the coast; at the mouths of the valleys lie many small sandy bays.

Local weather

3.269

1 The direction and force of the wind on the S side of the entrance to Persian Gulf is often uncertain, especially close

to high land; a vessel, if under sail alone, should avoid the S side of the entrance to Persian Gulf.

RA'S ŞAWŢ TO RA'S DILLAH

General information

Chart 3171

Route

3.270

1 From a position E of Ra's Şawţ (25°41′N 56°17′E) the route leads N for 27 miles to a position E of Ra's Dillah (26°08′N 56°29′E).

Topography

3.271

1 On its E and N sides Ru'ūs al Jibāl is indented by numerous inlets in which depths are generally considerable. Except in a few small valleys, where date groves and other vegetation may be found, the land is barren, though in some of the hill fissures there is scanty vegetation. Mountains, apparently consisting of bare rock, present a wild appearance, wolves, small leopards and foxes are all to be found living on the promontory.

Depths

3.272

1 The area E of Ru'ūs al Jibāl and its adjacent inlets and bays have not been systematically surveyed; see the chart source data diagram.

Principal mark

3.273

1 **Landmark:**

Jabal Qihwi (25°45′N 56°12′E), the S principal peak of the Ru'ūs al Jibāl promontory, rises to an elevation of 1793 m; it has a small notch in its summit.

Directions

(continued from 3.261)

3.274

1 From a position E of Ra's Şawţ (25°41′N 56°17′E) the track leads N, passing:

E of Ra's Şawţ, a rocky point where three spurs of the mountain range slope down to Dawḩat Dibā (3.262), thence:

E of Ra's Ḩaffah (25°44′N 56°18′E) the S extremity of a narrow promontory on the E side of Dawḩat Ḩaffah (3.275); the promontory is of moderate height decreasing in elevation towards its S end. Thence:

2 E of Ra's Ḩamrā (25°54′N 56°25′E), a sand coloured cliffy point, 56 m high, with trees growing on its summit; the point forms the S entrance point to Ghubbat 'Aqabah (3.276). Thence:

E of Jazīrat Līmah (25°57′N 56°28′E), a precipitous islet, 87 m high, which lies close E of Ra's Līmah, the termination of a narrow precipitous promontory; drying rocks lie close off its S side. Thence:

3 E of Ra's as Samīd (26°02′N 56°26′E), a high cliffy point which forms the S entrance point to Dawḩat Qabal (3.277), thence:

E of Ra's Sarkān (26°05′N 56°29′E) formed by a vertical cliff which rises to a considerable height; the point forms the S entrance point to Khawr Ḩabalayn (3.278). Thence:

(Directions for Khawr Ḩabalayn are given at 3.279)

4 E of Ra's Dillah (26°08′N 56°29′E), a vertical cliff with a conical summit which rises to heights of between 60 and 90 m; the point forms the SE extremity of the Musandam Peninsula (3.282) and the N entrance point to Khawr Ḩabalayn.

(Directions continue at 3.286)

Anchorages and harbours

Dawḩat Ḩaffah

3.275

1 **Description.** Dawḩat Ḩaffah (25°45′N 56°18′E) is entered W of Ra's Ḩaffah, the S extremity of a narrow promontory which forms its E side; the promontory is of moderate height decreasing in elevation towards its S end. The entrance is not easily identifiable, it is narrow and nearly landlocked and lies between high ground sloping down to the shore; depths vary from 12 to 15 m, decreasing to 5 m closer inshore. A small bay, close within the W side of the entrance, has a sandy beach along with some date palms and a few huts.

2 **Anchorage** has been obtained off the entrance in a depth of 22 m with Ra's Ḩaffah bearing 067°, distant 3 cables.

Al Līmah

3.276

1 **Description.** Two unnamed bays, separated by a headland, lie N of Ghubbat 'Aqabah (25°55′N 56°25′E), both are entered between Ra's Līmah (3.274) and Ra's Marovi (2¾ miles NW) off which lie two small, 8 m high, rocky islets. A small islet and a drying rock lie off the dividing headland formed by a high precipitous hill; further drying rocks lie in the N bay. Al Līmah (25°56′·6N 56°25′·5E) is a village on the SW shore of the S bay at the mouth of a valley in which grow date palms and other cultivated crops; part of the village extends in terraces up the side of the valley; a spit extends 2 cables offshore NW of the village; mountains rise abruptly to considerable elevations.

2 **Anchorage** can be obtained off Al Līmah in a depth of 22 m, but it is open to the E and NE.

Landing. The best landing place in E winds is that used by local boats close off the cliffs in a small bight on the S side of the S bay.

Side channels. A passage, 4 cables wide, separates Jazīrat Līmah (25°57′N 56°28′E) from Ra's Līmah; drying rocks extend off its W side and tidal streams run strongly. A deep passage lies between the coast and the small, 1 m high, islet lying 4 cables off the shore 1 mile NNE of Ra's Marovi.

Dawḩat Qabal

3.277

1 **Description.** Dawḩat Qabal is a deep water inlet entered between Ra's as Samīd (26°01′·5N 56°25′·6) (3.274) and Ra's Secun, 1¼ miles NNE, both are high cliffy points, the summit of Ra's Secun is formed by a small bare hill from which high cliffs continue NNE in an unbroken line of irregular, but decreasing elevation. The inlet is indented by several bays with small beaches separated by cliffy points. Ra's Samut divides the head of the inlet into a small bay and cove; about 1½ miles SW of its head mountains rise vertically and form a tremendous bluff over 1200 m high. Aimus is a village situated in the bay N of Ra's Samut; a drying rock lies close offshore 4 cables ENE of the village. The narrow cove on the S side of Ra's Samut has a steeply shelving sandy beach at its head.

Khawr Ḩabalayn

3.278

1 **Description.** The shores of Khawr Ḩabalayn (26°07′N 56°25′E) are deeply indented, high and precipitous except where valleys terminate in a few small sandy bays. The village of Ḩabalayn is situated on the shore of a small bight in the W part of the inlet; a prominent mosque with four arches stands on the foreshore on the E side of the village.

Route. From a position E of Ra's Sarkān (26°05′N 56°29′E), the route through Khawr Ḩabalayn leads 15 miles, generally WNW, to its head.

2 **Depths.** In the entrance the seabed is rocky with depths of around 60 m, depths within remain relatively deep even close to the shore, the bottom is mostly of mud. See 3.272.

3.279

1 **Directions.** From a position E of Ra's Sarkān (26°05′N 56°29′E) the track leads generally WNW, passing (with reference to Ra's Samma (26°08′·0N 56°22′·4E)):

NNE of Ra's Sarkān (6½ miles ESE) (3.274), thence:

SSW of Ra's Dillah (6¼ miles E) (3.274); a remarkable brown, 714 m high, peak with a small round knob on its summit stands 3 miles WNW of the point. Thence:

2 SSW of the unnamed point (3 miles E) on the S side of the Musandam Peninsula, thence:

NNE of the two unnamed points (2¼ miles SE) which lie between the villages of Mayat and Nibah, thence:

NNE of Ra's Samma the E entrance point to Khawr Niad, thence:

SSW of Jazīrat Ḩabalayn (2 miles NNW) an islet on the W side of the entrance to Ghubbat al Ghazīrah, thence:

3 NNE of Ra's ʻAmūd (1½ miles WNW) the W entrance point to Khawr Niad, thence:

W through to the head of the inlet.

3.280

1 **Anchorage** may be obtained in the NE corner of Ghubbat al Ghazīrah, in a depth of 45 m, mud; and in the unnamed inlet E of Ghubbat al Ghazīrah, off the village of Filam, in a depth of 40 m. Anchorage may also be obtained 2 cables N of Ra's Samma (26°08′·0N 56°22′·4E) in a depth of 32 m, mud and fine sand; anchorage has been obtained in the centre of the small bight off the village of Ḩabalayn (26°09′·2N 56°19′·6E), in a depth of 15 m, sand, with the prominent mosque at Ḩabalayn bearing 191°.

MUSANDAM PENINSULA – EAST SIDE

General information

Charts 3171, 3172

Route

3.281

1 From a position E of Ra's Dillah (26°08′N 56°29′E) the route leads N for 18 miles to a position ENE of Kachalū (Abū Sufur) (26°24′N 56°32′E).

Topography

3.282

1 The Musandam Peninsula (26°19′N 56°24′E), part of Oman, consists of a series of small, lofty peninsulas and headlands enclosing numerous inlets. Many of the inlets form good harbours, though the great depths make them inconvenient; the intense heat during summer may also render them extremely uncomfortable, even as temporary anchorages. Almost the entire coastline consists of cliffs, sometimes over 240 m high, erosion by the sea into their bases is so great that, between the high and low water lines, almost all are undermined by up to 5 m; cliff falls appear to be common. There is generally a considerable growth of oysters and other molluscs in this eroded area, they are razor sharp making landing hazardous especially for inflatable craft. Most of the inlets have a few small beaches of sand or pebbles.

2 The interior of the peninsula is extremely rugged, two peaks rise to elevations of around 600 m; the peaks are interspersed, in places, with deep valleys and many present sheer cliff faces and steep, stony screes. A few of the valleys, and some natural basins on high plateaus, retain enough moisture to allow cultivation and are inhabited. For the most part the peninsula appears parched and brown except after the winter rains when, for a short period, scattered bushes and tussocks of coarse grass show green. See 3.268.

Tidal streams

3.283

1 Tidal streams are strong between Jazīrat Umm al Fayyārīn (26°11′N 56°33′E) and Jazīrat Musandam, 11 miles N, and N to As Salāmah (26°30′N 56°31′E) with overfalls, tide rips and races. In the vicinity of Jazīrat Umm al Fayyārīn the in-going stream entering Persian Gulf usually sets N, at rates of between 2 kn and 3 kn, as far as Jazīrat Musandam where it then turns NW increasing to 4 kn, perhaps more at springs; the out-going stream usually sets in the opposite direction. See 1.119.

Inshore traffic zone

3.284

1 An inshore traffic zone, part of Strait of Hormuz Traffic Separation Scheme (2.7), extends from Ra's Qabr al Hindī (26°19′N 56°31′E) to Ra's Shaykh Masʻūd (26°15′N 56°13′E) between 7 and 8 miles offshore.

Principal marks

3.285

1 **Landmarks:**

Jabal Letub (26°12′·8N 56°25′·5E), a remarkable cone with a flat scalloped top.

Jabal Khaysah (26°13′·5N 56°28′·1E), a conical hill of light colour.

Jabal Ma'īlī (26°19′·1N 56°25′·9E), a sharp peak; on S bearings the E side of the peak appears to overhang slightly.

Directions

(continued from 3.274)

3.286

1 From a position E of Ra's Dillah (26°08′N 56°29′E) the track leads N, passing:

E of Jazīrat Umm al Fayyārīn (26°11′N 56°33′E), a steep-to islet of light colour; its W side is precipitous, but landing may be possible on its SE side. Thence:

E of Ra's Bāshin (26°11′N 56°29′E), a steep-to, 30 m high point, light red in colour, and Ra's Daʻaliq, close WSW, which forms the N entrance point to Ghubbat ash Shābūş. A pinnacle rock, 12 m high, lies 2 cables offshore and 7 cables N of the point; as the rock is the same colour as the cliffs behind,

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it is only clearly visible from the SE or when close inshore. Thence:

2 E of Ra’s Khaysah (26°14′N 56°30′E), a 30 m high grey point, which forms the S entrance point to Dawḩat ash Shīşah; White Rock, an 11 m high, steep-to rock, lies 2 cables NE of the point. Thence:

E of Ra’s Qabr al Hindī (26°19′N 56°31′E), a precipitous and steep-to point, 442 m high, which forms the N entrance point to Dawḩat ash Shīşah, thence:

3 E of Ra’s al Bāb (26°21′·5N 56°30′·4E), a vertical limestone cliff rising to 137 m on its E side and 76 m on its W, thence:

E of Jazīrat Musandam (26°22′N 56°32′E) (3.292), thence:

E of Kachalū (Abū Sufur) (26°24′N 56°32′E) (3.292).

(Directions continue at 3.292)

Side channel

3.287

1 **Fakk al Asad** (26°22′N 56°31′E) is a short, narrow strait separating Jazīrat Musandam (3.292) from Ra’s al Bāb (3.286); the strait, about 3 cables wide, is deep and clear of dangers and is frequently used, but is not considered safe for use by sailing vessels due to the strong tidal streams and unpredictable winds. If on passage through the strait great attention must be paid to the helm to maintain, as near as possible, a mid-channel course. See 3.269.

2 **Tidal streams.** The NW in-going tidal stream sets against the cliffs on the W side of the strait; the SE out-going stream sets onto the SW part of Jazīrat Musandam; tide rips occur in the strait.

MUSANDAM PENINSULA – NORTH SIDE

General information

Chart 3172

Route

3.288

1 From a position ENE of Kachalū (26°24′N 56°32′E) the route leads N for 16 miles to a position NW of Khartum Taisar (26°22′·6N 56°21′·3E).

Topography

3.289

1 See 3.282.

Hazard

3.290

1 Off the W side of Jazīrat al Khayl (26°22′N 56°27′E) the in-going N set of the tidal stream is strong with visible eddies. See 3.283.

Principal marks

3.291

1 **Landmarks:**

Jabal Ma’īlī (26°19′·1N 56°25′·9E) (3.285).

A conspicuous lattice mast (position approximate) (26°21′·9N 56°24′·6E) and a wind powered generator are situated N of the W summit of the headland which separates Khawr Kumzār from Khawr ar Ran; the headland has two distinct peaks, the highest rising to 226 m.

2 Jabal ‘Alam (26°21′N 56°23′E), a peak, with a double summit, rising over a precipice close S of the head of Khawr Khayran (Khawr Qaltah).

A conspicuous radio tower (red and white lattice construction, 81 m high; red obstruction lights) (26°22′·4N 56°21′·2E) stands on a hill, 64 m high, close S of Khartum Taisar the N point of Jazīrat Umm al Ghanam (3.299).

Directions

(continued from 3.286)

3.292

1 From a position ENE of Kachalū (26°24′N 56°32′E) the track leads W, passing:

S of Dīdamār (Little Quoin) (26°29′N 56°32′E) (2.13) from which a light (2.10) is exhibited, thence:

N of Kachalū (Abū Sufur) (26°24′N 56°32′E), a rocky islet in the form of a 29 m high pillar, 5 cables NE of Ra’s Musandam (3.292). Overfalls exist in the passage between the rock and the point; except for a 2·1 m shoal close SW of the islet, the passage is deep and clear. Thence:

2 N of Ra’s Musandam (26°23′N 56°32′E), a 30 m high cliff at the N extremity of Jazīrat Musandam. The island is precipitous on all sides, except in three or four coves on its E side where landing may be effected; near its S part the island rises to a height of 267 m in the form of three small peaks. Thence:

S of Ennerdale Rock (26°28′N 56°31′E) (2.13), an isolated rock with a least depth over it of 16 m, thence:

3 N of Bū Rāshid (Tawakkul) (26°24′N 56°30′E), a small islet 137 m high, steep-to and precipitous, 1½ miles NW of Jazīrat Musandam. Bū Rāshid cliff’s display characteristic angled rock planes which have suffered a high degree of erosion. A disused light-structure (low square aluminium pedestal) stands near its centre. Thence:

4 N of Ruqq Suwayk (26°24′N 56°29′E), a detached, dangerous, steep-to, rocky shoal, with a least depth of 2·1 m; Kachalū bearing more than 108° and open N of Bū Rāshid leads N of Ruqq Suwayk. Thence:

N of Jazīrat al Khayl (26°22′N 56°27′E) which is precipitous except for some small beaches on its N and S sides; the middle of the island has a saddle-shaped depression. Thence:

5 N of Ra’s Tahir, the N extremity of Jazīrat Abū Şīr (26°22′·9N 56°24′·9E), an islet 4 cables N of Ra’s Mukhaylif (not charted), the N extremity of the peninsula separating Khawr Kumzār and Khawr ar Ran (3.291). Jazīrat Abū Şīr is cliffy, near its S end stands a, 136 m high, peaked hill; the headland at its S end although quite high, is a very narrow finger of land which, in two places, the sea has broken through below the high water line such that, in rough weather, columns of fine spray are shot into the air accompanied by a roar as from a blow hole. A wreck, with a least depth over it of 27·5 m, lies close off the W side of the island; a shoal, with a least depth of 7·0 m, extends 2 cables N from Ra’s Tahir. Thence:

6 N of Keshal (26°23′·7N 56°24′·7E), a group of rocks, 2 m high, from which a light is exhibited; strong overfalls occur in this vicinity with visible eddies. Thence:

N of Ruqq Shurayţah (26°24′N 56°23′E), a detached shoal, with a least depth of 3 m; tidal overfalls and eddies occur in this vicinity. Thence:

(Directions for Khawr al Quway‘ are given at 3.296)

N of Khartum Taisar (26°22′·6N 56°21′·3E) the N point of Jazīrat Umm al Ghanam.

(Directions continue at 3.309)

Khawr al Quway‘

Charts 3172, 3409 plan of Khawr al Quway‘ Anchorage

General information

3.293

1 **Description.** Khawr al Quway‘ (26°21′N 56°22′E) is a deep water strait, clear of dangers with a least width of 2½ cables, entered from N passing E of Ra’s Salīb (26°22′·1N 56°21′·8E); and from S passing between Sar Kursi (26°20′·2N 56°21′·3E) and Sar Kardeo, 2½ cables ESE. There are several small beaches on both sides of the strait, but the best landing is on its E side at Sīfat Lehsa (26°21′·8N 56°22′·1E), 4 cables S of the N entrance. With the exception of Ra’s Musandam Base (3.299) in the NW part of the strait, the shores of Khawr al Quway‘ appear uninhabited.

2 **Depths.** Frequent rock falls throughout have resulted in numerous submerged rocks lying at the base of the cliffs.

Traffic regulations. A restricted area, in which vessels of greater than 20 m in length may not enter without prior notice from the Royal Navy of Oman, encloses Jazīrat Umm al Ghanam and Khawr al Quway‘; see *Admiralty List of Radio Signals Volume 6 (3)*.

Natural conditions

3.294

1 **Flow.** In 1961 the combined current and tidal stream at springs, observed 5 cables S of Ra’s Salīb, set SSW for only about 2 hours either side of HW, setting NNE during the remainder of the cycle with the maximum rate occurring at LW.

Tidal streams. In the approaches to the N entrance the out-going stream sets ENE; the in-going WSW. Within the strait the stream sets S with the in-going and N with the out-going at maximum rates of about 2 kn; it has been reported that the streams have been found to be erratic due to the numerous eddies within the strait.

2 **Current.** Normally a current of between 1 and 2 kn sets through Khawr al Quway‘. Superimposed on the tidal streams is a variable wind generated current; it is thought to run predominantly NE, counter to the currents experienced further W. Mariners are advised to compare the predicted tidal stream with observations on any buoys or fishing floats etc, to access the strength of the current which is likely to be at its strongest following a period of fresh NW winds.

Eddies and overfalls. Because of its narrow entrances, and its proximity to Persian Gulf and Gulf of Oman, tidal flows are strong, eddies and overfalls occur within the strait particularly off Ra’s Salīb on the W side of the N entrance.

Principal marks

3.295

1 **Landmarks:**

A conspicuous radio tower (26°22′·4N 56°21′·2E) (3.291).

A conspicuous mosque (white with a minaret; red obstruction lights) (26°22′·2N 56°21′·8E) stands close W of Ra’s Salīb (3.296). A further tower (red and white; red obstruction lights) stands, along with a flagstaff, on a hill which rises close S of Ra’s Sīfat Shaykh, 3 cables NW, between the mosque and the conspicuous radio tower.

Directions

3.296

1 From a position N of Ruqq Shurayţah (26°24′N 56°23′E) the track initially leads S, passing (with reference to Ra’s Salīb (26°22′·2N 56°21′·8E)):

W of Ruqq Shurayţah (1¾ miles NNE) (3.292), thence:

W of Şakhr al Makhrūq (1½ miles NNE), a 24 m high, conspicuous rock which lies just under 1 cable N of Ra’s Shurayţah. The sides of the rock, except S, are vertical; drying and dangerous rocks lie close off its W side. Thence:

2 W of Ra’s Shurayţah (1½ miles NNE), the N extremity of a cliffy promontory, 21 m high, which forms the W side of Khawr Fordah. South of its mid-part the promontory rises in the form of a, 122 m high, dome aptly named Round Hill; the sides of this promontory are precipitous except where it is joined to the mainland by a short, low, sandy isthmus. Thence:

E of Khartum Taisar (6½ cables NW) (3.292), the N point of Jazīrat Umm al Ghanam, thence:

3 E of Ra’s Sīfat Shaykh (3¼ cables NW), which forms the E entrance point to Sīfat Shaykh, a small bay at the N end of Jazīrat Umm al Ghanam, thence:

W of Sīfat Maklab (4 cables ENE), a small bay on the E side of the N entrance to the strait, thence:

E of Ra’s Salīb, a rocky projection, between 9 and 12 m high, resembling a pier extending 2 cables E from the NE extremity of Jazīrat Umm al Ghanam on which stands a conspicuous mosque (3.293), thence:

4 W of the small islets (2½ cables E) which lie close off the E side of the N entrance, thence:

E of a light-beacon (grey, can topmark) (1 cable SW) standing on the edge of the reef close ENE of the naval jetty (3.301), thence:

E of Ra’s Musandam Base Jetty (1¾ cables WSW) (3.301); lights (grey metal posts) are exhibited from each end. A light-beacon stands WNW of the naval jetty on a pontoon between the jetty and the shore. Thence:

5 E of Khawr al Quway‘ Light-beacon (grey metal post, can topmark) (3 cables SW) which stands on the E side of the outer reef of a line of reefs extending SE from the coast S of the naval jetty; a stranded wreck lies on the reef close SW of the light-beacon. Works are in progress (2005) close S of the reef. Thence:

E of West Middle Point (1 mile SSW), a cliffy, 24 m high, point which forms the S entrance point to the small inlet of Ghubnat Khanakan; a beacon (white cairn, 1·5 m high) stands at an elevation of 80 m 2¼ cables N of the head of the inlet. Thence:

6 W of East Middle Point (1 mile SSE) which forms the S entrance point to Khawr Zinzān.

3.297

1 The track continues SSW, passing (with reference to Sar Kursi (26°20′·2N 56°21′·3E)):

ESE of Sar Kursi, the SE corner of Jazīrat Umm al Ghanam, and:

WNW of Sar Kardeo (2½ cables ESE), a cliffy point, 64 m high, situated on the W side of the short peninsula forming the W side of Khawr Gharam, thence:

NNW of Ra’s Qabbah (1 mile S), a cliffy point which forms the W entrance to Khawr Bustān (3.298), thence:

2 SSE of Qarn ath Thawr (7 cables WSW) (3.309), thence:

NNW of Ra’s Khuţaymah (1½ miles SW), the W entrance point to Khawr Jum; and through into the E side of the Strait of Hormuz.

Anchorages

3.298

1 Anchorage may be obtained as convenient in Khawr al Quway‘ in depths of 23 to 31 m, sand, gravel and soft or broken coral. A berth, with good holding ground of sand and coral, may be obtained 2 cables S of the naval jetty; the tidal stream in this position was found to be erratic due to numerous eddies, but the strength of the stream did not prove to be a problem. On account of the rate of the N-going stream and the eddies experienced within the strait, vessels should not anchor within 8 cables of the S entrance to Khawr al Quway‘; eddies are also strong 5 cables S of Ra’s Salīb.

2 **Khawr Bustān** (26°19′·2N 56°21′·6E), a small cove in the SE corner of the S end of Khawr al Quway‘, is entered E of Ra’s Qabbah; the village of Qabbah lies at its head. Good anchorage may be obtained within the cove, 3 cables E of Ra’s Qabbah, a position where the tidal streams are almost imperceptible.

Ra’s Musandam Base

General information

3.299

1 **Position.** Ra’s Musandam Base (26°22′N 56°22′E), an Oman Forces Base, is situated in the NE corner of Jazīrat Umm al Ghanam; it consists of a naval jetty, airfield, barrack blocks, offices, a desalination plant, oil and water storage tanks and a helicopter landing area.

2 **Topography.** Jazīrat Umm al Ghanam, a barren, waterless, buff coloured island with a series of rounded hills running along its length, forms the W side of Khawr al Quway‘ (3.293). Khartum Taisar (26°22′·6N 56°21′·3E), the N extremity of the island, and the hill (3.291), close S, are joined by a low sandy neck to the main part of the island; on the SW side of the neck lies Ghubnat Karban, a shallow, horseshoe shaped drying bay. From its N part the land rises gradually to an elevation of 186 m then falls; at its S end it terminates in sheer cliffs, 106 m high. Off Qarn ath Thawr (26°20′N 56°21′E) (3.309), the SW corner of the island, lie some above water rocks and a drying rock.

Arrival information

3.300

1 **Regulations.** Vessels greater than 20 m in length may not enter the restricted area (3.293) without prior permission from the Royal Oman Navy.

Prohibited area. The whole of Jazīrat al Ghanam is a prohibited area.

Harbour

3.301

1 **General layout.** The naval facility is made up of a naval jetty extending SW from the end of a causeway extending SSE from the shore, close W of Ra’s Salīb (3.296). An obstruction, with a least depth over it of 30 m, lies 1¼ cables ESE of the naval jetty.

Development. Works are in progress (2005) SSW of the base.

Berths

3.302

1 The naval jetty, used by Oman patrol and logistics craft, provides alongside berths of up to 100 m in length with alongside depths of 7 m.

Side channels

Bab Mukhaylif

3.303

1 **General information.** Bab Mukhaylif (not charted) is a deep and clear strait between Ra’s Mukhaylif (26°22′·3N 56°24′·7E) and Jazīrat Abū Şīr; Jazīrat Mukhaylif (Katu); a 72 m high precipitous rock lies off the S extremity of Jazīrat Abū Şīr. Tidal streams through the strait are strong forming eddies.

Bāb Shurayţah

3.304

1 **General information.** Bāb Shurayţah is the narrow channel separating Ra’s Shurayţah (26°23′·4N 56°22′·7E) from Şakhr al Makhrūq (3.296), 150 m N, a rocky islet off the S side of which lie a reef and a drying rock. Bāb Shurayţah, with a least depth in its fairway of 8·5 m, is considered more suitable for use by smaller vessels than the outer route where tidal overfalls will always be encountered. Strong tidal streams run through the channel.

Anchorage

Khawr Kumzār

3.305

1 **Description.** Khawr Kumzār (26°21′N 56°25′E) entered 1 mile NW of Khawr Ma’īlī, is deep and bordered by high cliffs; the village of Kumzār is situated on the E side of its head. A small fort stands on the shore E of the village; a peak, 559 m high, rises 6 cables SSW. The bay is open to the *nashī*, but is sheltered from the *shamāl.*

Anchorage. A good anchorage can be obtained 1 mile NNE of the village of Kumzār in a depth of 42 m.

MUSANDAM PENINSULA – WEST SIDE

General information

Chart 3172

Route

3.306

1 From a position NW of Khartum Taisar (26°22′·6N 56°21′·3E) the route leads SW for 6 miles to a position NW of Ra’s Shaykh (26°17′·3N 56°19′·2E).

Topography

3.307

1 See 3.282.

Principal mark

3.308

1 **Landmark:**

A conspicuous radio tower (26°22′·4N 56°21′·2E) (3.291).

Directions

(continued from 3.292)

3.309

1 From a position NW of Khartum Taisar (26°22′·6N 56°21′·3E) the track leads SW, passing:

NW of Qarn ath Thawr (26°20′N 56°21′E), a high cliffy point which forms the SW corner of Jazīrat Umm al Ghanam (3.299); rocks and a drying rock, lie close off the point. Thence:

NW of Ra’s Khuţaymah (26°19′N 56°20′E), the W entrance point of Khawr Jum, thence:

2 NW of Hassa Halima (26°18′N 56°19′E), a drying rock close W of the N entrance point to Khawr Ghubb ‘Alī (3.310), thence:

NW of Ra’s Shaykh (26°17′·3N 56°19′·2E), the S entrance point to Khawr Ghubb ‘Alī and the N extremity of the Shamm Peninsula (3.312).

(Directions continue at 3.317 and for Khawr ash Sham at 3.319)

Anchorage

Khawr Ghubb ‘Alī

3.310

1 **Description.** Khawr Ghubb ‘Alī (26°17′N 56°21′E) is deep, 4 miles long, and entered 2½ miles SSW of Jazīrat Umm al Ghanam (3.299); the inlet is clear of dangers and provides shelter against all winds except the *shamāl*. Ra’s Shaykh (26°17′·3N 56°19′·2E) (3.309) is its S entrance point; Hassa Halima, a drying rock, 1 mile N, lies close W of the unnamed N entrance point. Both points are formed by high cliffs, on the N side they rise to a conical hill, 357 m high. Ghubb ‘Alī is a small village near a sandy beach at the head of the inlet; a few trees grow in its vicinity; Ghubbat Qadimah and Bidi are other villages in the inlet. Jabal Letub (26°12′·8N 56°25′·5E) (3.285) is a good mark from seaward when off Khawr Ghubb ‘Alī, from this direction the summit is shaped like a sugar-loaf and appears to be situated close to the head of the inlet.

2 **Anchorage** can be obtained at the head of Khawr Ghubb ‘Alī in a depth of 22 m, sand.

RA’S SHAYKH TO RA’S ASH SHA’M

General information

Charts 3172, 3174

Route

3.311

1 From a position NW of Ra’s Shaykh (26°17′·3N 56°19′·2E) the route leads SW for 18 miles to a position NW of Ra’s Ash Sha’m (26°04′N 56°05′E).

Topography

3.312

1 The Shamm Peninsula (26°15′N 56°20′E) is connected to the SW side of the Musandam Peninsula by a narrow neck of land which separates Khawr Ghubb ‘Alī (3.310) and Khawr ash Shamm (3.318). The peninsula is similar in aspect to the Musandam Peninsula with peaks rising to nearly 900 m on its W side, it is cliffy except near the village of Hassa (26°14′N 56°19′E) which lies near a sandy beach at the head of a small bay mid-way along the W side of the peninsula.

2 Mountains rise steeply from the W coast of Ru’ūs al Jibāl off which there are no off-lying dangers. Jabal as Sayḩ (3.315) is visible over the other mountains except when very close inshore. The coast from close SSW of Ra’s Shaykh Mas‘ūd (26°15′N 56°13′E) is bordered intermittently by cliffs increasing in height towards Ra’s al Jirrī (26°14′N 56°11′E), a bold cliff prominent from NW or SW. The coast between Bukhā (26°08′·7N 56°09′·0E) and Ra’s Ash Sha’m, 6 miles SW, is steep-to and rocky, interspersed with small sandy beaches, farther S it is low and more characteristic of the rest of the S shore of Persian Gulf.

Hazard

3.313

1 The coast SW of Ra’s Shaykh Mas‘ūd, is open to the *shamāl* from which no shelter may be found; any vessel at anchor off this stretch of coast should proceed to sea as soon as there are any indications of a *shamāl*.

Natural conditions

3.314

1 **Tidal stream.** The tidal streams seaward of a line extending NE from Ra’s Shaykh Mas‘ūd, set SW with the in-going stream and NE with the out-going, at rates of between 1½ kn and 2 kn; E of the point they are weak.

Principal marks

3.315

1 **Landmarks:**

Jabal Qihwi (25°45′N 56°12′E) (3.273).

Jabal al Hārah (Fine Peak) (26°06′·0N 56°10′·5E) appears as a regular cone from the E or W; from the latter direction the long slope on its N side is most prominent. When seen from the N the summit has a rounded top, but when bearing between about 140° and 170° it does not show up well against the mountains S of it.

2 Jabal as Sayḩ (25°58′·8N 56°13′·7E), 10 miles WNW of Al Duss, is the N principal peak of Ru’ūs al Jibāl; the peak has a truncated or small table topped summit with a notch in its S part. A conspicuous radome and radio tower stand on the peak.

Other aid to navigation

3.316

1 **Racon:**

Bukha Oilfield Platform (26°15′N 56°03′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.309)

3.317

1 From a position NW of Ra’s Shaykh (26°17′·3N 56°19′·2E) the track leads SW, passing:

NW of Ra’s Shaykh Mas‘ūd (26°15′N 56°13′E), a prominent headland which forms the N extremity of Ru’ūs al Jibāl (3.268). The headland is formed by cliffs, 15 m high, from which the land gradually rises towards the S. There are two small bights at its N extremity with white sandy beaches; in the E bight stands the tomb of the Shaykh after whom the point is named. A light (visible 065°–297°) is exhibited from the N extremity of the headland. Thence:

2 NW of Ra’s al Jirrī (26°14′N 56°11′E), a bold cliff prominent from NW and SW, thence:

SE of Bukha Oilfield Platform (26°15′N 56°03′E), a isolated production platform, connected to the shore by a submarine oil pipeline laid S to land S of Mīnā’ Saqr (7.19), thence:

NW of Ra’s Khaţm (26°09′N 56°09′E), a point which projects N from the general line of the coast W of the small town of Bukhā (3.324), thence:

3 NW of Ra's ash Sha'm (26°04′N 56°05′E) (7.17); the Inchcape Light-buoy (special) is moored 12¾ miles WNW.

(Directions continue at 7.17)

Anchorages and harbours

Khawr ash Shamm

3.318

1 **Description.** Khawr ash Shamm (Khawr Khasaibi or Eliphinstone Inlet) (26°12′N 56°20′E) is an extensive inlet entered between the W side of the Shamm Peninsula (3.312) and Ra's Shakhs (26°13′·3N 56°17′·1E); its shores are backed by precipitous mountains and are deeply indented, there are several islets within the inlet which is only accessible by a narrow and winding channel whose entrance may be somewhat difficult to identify even from a short distance.

2 **Fish traps** lie in the outer approaches to Khawr ash Shamm.

Tidal streams. During the period of spring tides the streams run strongly through the entrance.

Landmark:

Jabal Shamm (26°13′·1N 56°19′·6E) is a remarkable, peak with a high precipice on the E side of the entrance; a radio mast stands on the NW side of the peak.

3.319

1 **Directions.** From a position NW of Ra's Shaykh (26°17′·3N 56°19′·2E) the track leads 11 miles, initially S then mainly E, passing (with reference to Ra's al Kau (26°12′·9N 56°20′·8E)):

E of Ra's Shakhs (3¼ miles W), a cliffy point, 46 m high, which forms the W entrance point to the inlet; a prominent sandy beach is on its W side. Thence:

E of Ra's Ḩumşī (3 miles W) the E entrance point to Khawr Ḩumşī, thence:

2 SW and S of the Shamm Peninsula (3.312), thence:

N of a cove entered 1¾ miles SSE of Ra's Ḩumşī; the village of Naz̧īfī is situated within the cove. Thence:

NNW of the village of Qānah (2 miles SW) which lies at the head of small cove; a conspicuous white square building stands on the foreshore. Thence:

NNW of Jazīrat al Maqlab (Jazīrat Şaghīr) (1 mile SSW), a small, 15 m high, islet which lies in the entrance to Khawr Maqlab (not charted); a pinnacle rock, with a least depth over it of 2·6 m, lies close NW of the islet. Thence:

3 NNW of Jazīrat Shamm (Jazīrat Kabīr) (6 cables S) an islet, 91 m high, which lies near the mid-part of the inlet close off the narrow isthmus connecting Ru'ūs al Jibāl (3.268) with the Musandam Peninsula (3.282). A danger circle, with a least depth over it of 16·1 m (reported 2000), and a depth of 15·5 m lie close NW of the islet. Thence:

SSE of Ra's al Kau, which forms the E entrance point to a small shallow cove which has the village of Shamm at its head, thence:

4 NNW of a narrow headland (7 cables ESE) extending NNW from the narrow isthmus connecting Ru'ūs al Jibāl with the Musandam Peninsula, thence:

SSW of Ra's al Khaţm (1½ miles E), a point, 63 m high, situated at the outer end of a narrow peninsula which extends S from the N shore of the inlet, thence:

SSW of Jazīrat Şībī (2¼ miles E), an islet, 39 m high, on the N side of the head of the inlet.

3.320

1 **Anchorage.** The best anchorage within Khawr ash Shamm is reported to be S of Jazīrat al Maqlab (26°11′·7N 56°20′·6E); sheltered anchorage may also be found off the village of Shamm, W of Ra's al Kau (26°12′·9N 56°20′·8E) and about 3 cables offshore, in a depth of 5 m. Anchorage has also been obtained 5 cables from the head of the unnamed cove, entered N of Jazīrat Şībī (26°13′·3N 56°23′·5E), in a depth of 33 m, thin mud.

Khawr Qadah

3.321

1 **Description.** Khawr Qadah (26°12′·9N 56°13′·5E) is a cove, separated from Khawr Khaşab (3.323) by a ridge of steep hills, entered between Ra's Salti 'Alī and Ra's ar Rakham, 6 cables W, (not charted). Qadah is a small village, within a large grove of date palms, standing on the shore at its head; Mūkhī, a large fishing village, lies on the W side of the entrance 5 cables SSW of Ra's ar Rakham.

Anchorage can be obtained off Mūkhī (26°12′·6N 56°13′·1E) in depths of 15 m.

Khawr Ḩanah

3.322

1 **Description.** Khawr Ḩanah (26°14′N 56°13′E) is a small cove entered 1¼ miles NNW of Khawr Qadah (3.321); a few huts and a date grove stand on its shores.

Anchorage, sheltered from the *shamāl*, can be obtained off Khawr Ḩanah with Ra's Shaykh Mas'ūd (26°15′N 56°13′E) (3.317) bearing 306°, distant 1½ miles, in depth of 35 m. It has been reported that closer inshore, with Ra's Shaykh Mas'ūd bearing 331°, distant 1¼ miles, there was little shelter from the *shamāl* as the wind blew down a gully in the hillside reaching the mouth of the cove with an increased force.

Khaşab Port

3.323

1 **Description.** Khaşab Port (26°13′N 56°15′E) is situated on the outer part of the W side of Khawr Khaşab a cove entered W of Ra's Naikhi (not charted). The Governor of the Oman Province of Musandam resides at Khaşab which is also the administrative capital for the district of Ru'ūs al Jibāl. An Oman Air Force base and an Army camp are near the town; the airfield is used by both civilian and military aircraft.

2 The town of Khaşab stands at the head of Khawr Khaşab amid a grove of date palms, which extends S along a wide valley with steep bare hills on each side, the only part of the town that is clearly visible is the souk area with its white painted buildings. At the W end of the town, in the vicinity of the souk, land has been reclaimed to build a road which extends along the W side of the cove to Ra's al Khums (26°12′·6N 56°14′·6E) (not charted) a rocky point; a small square ruined fort stands on Ra's al Khums, but is not easily identified. The N coast of Ru'ūs al Jibāl (3.268) between Khawr Khaşab and Ra's Shakhs, 2 miles E, is high and rocky; between these two features lie two small coves; Khawr Fanakhah is the E and larger with a village at its head.

3 **Mean tidal levels.** Mean spring range about 1·7 m; mean neap range about 1·1 m; see *Admiralty Tide Tables Vol 3.*

Local weather. When the *shamāl* is blowing the actual wind experienced in the bay is from SW; the bay is well sheltered from both wind and sea. Khawr Khaşab is open to N and so to the strong N winter winds, but these winds occur very rarely and are of short duration.

Outer anchorage. Anchorage may be obtained, within a designated area, centred on 26°17′·6N 56°15′·0E about 3¾ miles W of Ra's Shaykh; anchorage may also be obtained off the port in good holding ground, in winter it is best to remain in depths greater than 18 m, but in summer anchorage may be obtained in a depth of 13 m; fine sand.

4 **Fish traps** lie in the approach to the port.

Harbour. An outer protective breakwater extends 200 m ENE from Ra's al Khums within which lies the port; a drying sandbank extends 5 cables from the S shore of the inlet.

Development. Works are in progress (2005) within the harbour.

Tidal stream. The tidal stream is reported to be variable in direction and of moderate strength in the vicinity of the anchorage, but farther offshore the stream attains greater rates.

5 **Landmarks:**

A silver water tank (26°12′·6N 56°14′·5E), conspicuous when reflecting the sun, stands on the hill above Ra's al Khums, 350 m SW of the breakwater head light.

A fort (26°12′·0N 56°14′·9E) with flagstaff is prominent near the middle of the beach at the head of the cove.

A radio mast (red and white lattice construction) (26°11′·7N 56°15′·4E) stands on the E side of the head of the cove.

6 **Lights:**

Khawr Khaşab Breakwater Head Light (post on concrete base, 4 m high) (26°12′·7N 56°14′·7E) is exhibited from the outer end of the breakwater.

A light (white triangle topmark flood-lit at night, 1 m high) (26°12′·4N 56°14′·6E) is exhibited from a groyne SW of the breakwater head.

7 **Berths.** There are two quays, one of 90 m in length and the other of 60 m, for use by coasters and supply craft; both have alongside depths of 4 m. A ramp, 15 m wide, for use by landing craft and a pontoon landing stage for dhows, are both SW of a spur breakwater near the S end of the longer quay.

Port services: Hospital; diesel fuel available at the pontoon; fresh water at the quays; provisions available; regular flights to Muscaţ.

Bukhā

3.324

1 **General information.** Bukhā (26°08′·7N 56°09′·0E) is a small town on the shore of a small shallow bight E of Ra's Khaţm.

Topography. Ra's Khaţm projects N from the general line of the coast; inland from the village lies a cultivated plain with groves of date palms.

Anchorage can be obtained 1 mile NW of the prominent white fort on Ra's Khaţm, in a depth of 40 m.

2 **Harbour.** A small stone jetty, protected by an outer breakwater, used by dhows, extends 90 m N from a position on the coast W of Bukhā; lights (metal posts, 3 m high) are exhibited from the heads of the outer breakwater and the jetty.

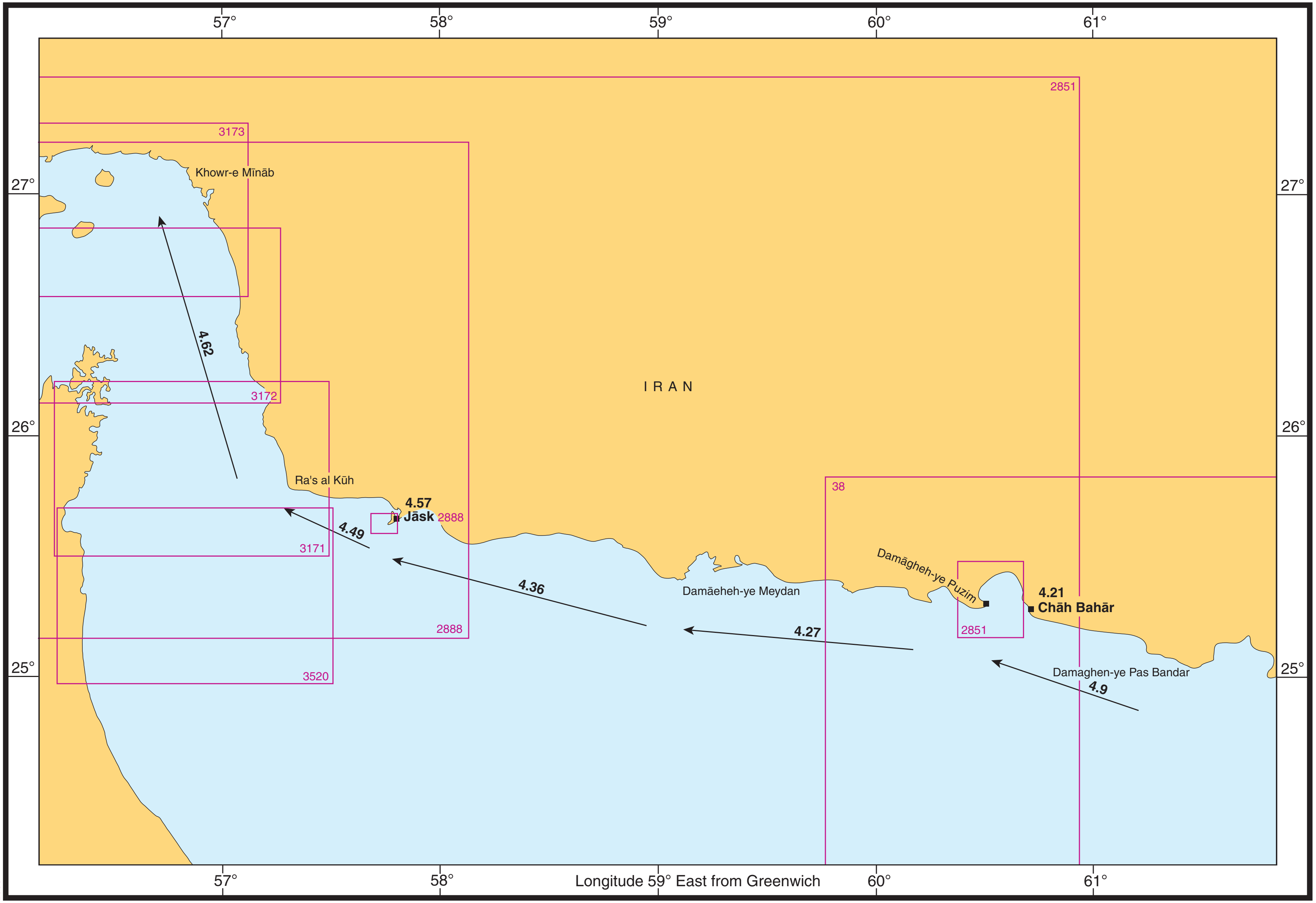
Tidal stream. The tidal streams off Ra's Khaţm set parallel to the coast.

Landmark:

A prominent white fort, 14 m high, with a tower at one corner on Ra's Khaţm (26°08′·9N 56°08′·6E); a radio mast stands close S of the point.

Port services. There is an airfield close S of the town.

Chapter 4 - Gulf of Oman - the coast of Iran from Damāgheh-ye pas Bandar to Khower-e Mīnāb



CHAPTER 4

GULF OF OMAN — THE COAST OF IRAN FROM DAMĀGHEH-YE PAS BANDAR TO KHOWR-E MĪNĀB

GENERAL INFORMATION

Chart 2858

Scope of the chapter

4.1

1 This chapter describes the S coast of Iran from Damāgheh-ye Pas Bandar (25°04′N 61°25′E), the W entrance point to Gwatār Bay, to Ra's al Kūh (25°48′N 57°18′E), 230 miles W; then 84 miles NNW to Khowr-e Mīnāb (27°07N 56°47′E).

The chapter is divided into the following sections:

Iran – Makrān Coast (4.7).
Iran – Bīābān Coast (4.43).

Also described are the ports of:

Chāh Bahār (25°18′N 60°38′E) (4.21).
Jāsk (25°39′N 57°46′E) (4.57).

Topography

4.2

1 Gwatār Bay (25°07′N 61°36′E) and Damāgheh-ye Pas Bandar are described in *NP 38 West Coast of India Pilot.*

Exercise areas

4.3

1 Submarines frequently exercise, both surfaced and dived, in the vicinity of 25°25′N 58°20′E and 26°40′N 56°50′E. A good lookout should be kept when navigating through these areas for both submarines and any escorting vessels.

See the *The Annual Summary of Admiralty Notices to Mariners* and *The Mariner's Handbook.*

Hazard

4.4

1 Navigation off the coast of Iran may be impeded by the land being frequently obscured by dust haze which is especially prevalent between the months of April and June. If relying on visual fixing it is recommended a vessel should remain in depths of more than 20 m.

Dumping grounds

4.5

1 Explosives dumping grounds lie 50 miles S of Chāh Bahār (25°18′N 60°38′E) and 60 miles SE of Ra's-e Jāsk (25°39′N 57°46′E).

Traffic separation schemes

4.6

1 The Ra's al Kūh Traffic Separation Scheme has been established SW of Ra's al Kūh (25°48′N 57°18′E) (4.51); the Strait of Hormuz Traffic Separation Scheme is described in Chapter 2.

IRAN – MAKRĀN COAST

GENERAL INFORMATION

Chart 2858

Area covered

4.7

1 This section describes the Makrān Coast from the Iran-Pakistan border, at the head of Gwatār Bay (25°07′N 61°36′E), to Jāsk 210 miles W.

It is arranged as follows:

Damāgheh-ye Pas Bandar to Damāgheh-ye Puzim (4.9).
Khalīj-e Chāh Bahār (4.16).
Khalīj-e Chāh Bahār to Damāgheh-ye Meydān (4.27).
Damāgheh-ye Meydān to Ra's-e Jāsk (4.36).

Topography

4.8

1 The S coast of Iran is low with ranges of mountains rising some distance inland, but there are many high rocky points and hills near the coast. The country is barren, but not total desert; the population of the area is sparse and there are a number of villages or settlements, but the only town of any real size is Chāh Bahār (25°18′N 60°38′E) (4.21).

DAMĀGHEH-YE PAS BANDAR TO DAMĀGHEH-YE PUZIM

General information

Charts 38, 2851

Route

4.9

1 From a position S of of Damāgheh-ye Pas Bandar (25°04′N 61°25′E) the route leads W for 54 miles to a position S of Damāgheh-ye Puzim (25°17′N 60°28′E).

Topography

4.10

1 Between Kīzh Dāb (25°16′N 60°50′E) and Chāh Bahār, 12 miles WNW, the coast consists of rocky hills and cliffs gradually decreasing in elevation towards the W; the cliffs and hills are cut by numerous dry water courses some of which are flooded at high water. Numerous small sandy coves and bays, enclosed by cliffs, are situated along the coast. Inland of the coastal hills the country is composed of a low flat plain which extends W for many miles.

Current

4.11

1 The set off Khalīj-e Chāh Bahār (25°20′N 60°32′E) is variable and generally less than ½ kn; the most common sets are E from February to October and W from November to January.

Principal marks

4.12

1 Khākī Kūh (25°22′N 61°00′E) is a peak rising to an elevation of 525 m, 18 miles NW of Damāgheh-ye Zarīn Sar (4.14). The peak is composed of white clay and shows up well when the sun is shining on it. Khākī Kūh is part of a range which extends for some miles both E and W, its S face is almost vertical and its crest is deeply indented; when seen from the W it presents a double peak with a bluff SE of it.

Sīāh Kūh (25°15′N 60°52′E) is a dark round hill, rising to an elevation of 233 m; prominent cliffs on its seaward side stand close to the coast. Kīzh Dāb is a gap in the coastal hills on the W side of Sīāh Kūh through which a small stream enters the sea.

Other aid to navigation

4.13

1 **Racon:**

Damāgheh-ye Chāh Bahār (25°17′N 60°36′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from West Coast of India Pilot)

4.14

1 From a position S of Damāgheh-ye Pas Bandar (25°04′N 61°25′E) the route leads W, passing:

S of Damāgheh-ye Pas Bandar, from which a light (framework tower) is exhibited; cliffs, between elevations of 15 and 20 m, extend 6 miles WNW from the point fronting the coastal plain. A dangerous wreck lies 6 miles SSW of the point. Thence:

2 S of Damāgheh-ye Zarīn Sar (25°08′N 61°11′E), a prominent point fronted with white-faced cliffs which stand out very clearly from seaward; a range of prominent white clay hills, with very remarkable peaks, rise 5 miles inland NE of the point. Cliffs, 60 m in height, extend 7 miles ESE, they are very broken and cut by numerous dry water courses, large rockfalls at the base of the cliffs extend down to the high water line; there are some small sandy foreshore areas, but access is difficult. Thence:

3 S of Damāgheh-ye Chāh Bahār (25°17′N 60°36′E), a low, rocky and inconspicuous point situated at the E extremity of a short promontory forming the E entrance point to Khalīj-e Chāh Bahār (4.16); a light (framework tower, 9 m in height) is exhibited from the point. A small white-washed square tomb, with a white dome, stands close NW of the point; a light-buoy (special) is moored 3 miles SE. And:

Through to a position S of Khalīj-e Chāh Bahār.

(Directions continue at 4.31)

Anchorage

Barīs

4.15

1 **Description.** Barīs (25°11′N 61°10′E) is a small fishing village on the N side of a small bay, the S side of which is formed by Damāgheh-ye Mochkar (not charted), a small point extending ENE from a position close N of Damāgheh-ye Zarīn Sar (25°08′N 61°11′E). A small mosque stands within the village which, from about 2 miles offshore, appears prominent. A buoy (port hand) is moored close SSW of the village.

Anchorage may be obtained in the middle a small bay NNW of Damāgheh-ye Zarīn Sar, in a depth of 9 m, sand; anchorage has also been obtained 5 cables W of Damāgheh-ye Zarīn Sar in a depth of 11 m.

KHALĪJ-E CHĀH BAHĀR

General information

Chart 2851 plan of Khalīj-e Chāh Bahār

Description

4.16

1 Khalīj-e Chāh Bahār (25°20′N 60°32′E) is a large bay, open to S, entered between Damāgheh-ye Chāh Bahār (25°17′N 60°36′E) (4.14) and Damāgheh-ye Puzim (7½ miles W) (4.31); from its entrance the bay opens up to about 11 miles in width and 9 miles N.

Topography

4.17

1 For the first 4 miles within its entrance both shores of the bay are steep and rocky. At the head of the bay the shores are low and sandy, backed by swamp and salt-pans extending into a large low plain. Ra's-e Ţis (25°21°N 60°36′E) (4.21) is a prominent headland rising to 50 m on the E side of the bay; cliffs turn inland NE of Ra's-e Ţis and form the abrupt ramparts of the table-land which extends inland from this vicinity. For about 4 miles N of Ra's-e Ţis the shore of the bay is fronted by a series of shallow ridges extending up to 2½ miles offshore, these ridges, over which there are dangerous shoal depths, are composed of coarse sand and shell.

2 Ţis (25°22′N 60°37′E), the oldest settlement in Khalīj-e Chāh Bahār, is situated about 1 mile inland within a steep-sided valley, the mouth of which lies immediately N of Ra's-e Ţis. In the centre of the village, among orchards and palm groves, stands a mosque with a prominent white dome and minaret. A small hill rises at the mouth of the valley on which are the ruins of a Portuguese fort. Under the cliffs on the N side of the valley mouth is a shallow lagoon which fishing craft can enter at high water; there is a police post at its mouth. Konārak (25°22′N 60°24′E) is a village on the W side of Khalīj-e Chāh Bahār; tanks stand on the N side of the village and a small jetty extends about 150 m from the shore, 1 mile N.

Tidal streams

4.18

1 Weak streams are experienced within the bay; any currents which do exist appear to depend on the direction of the prevailing wind.

Principal marks

4.19

1 **Landmarks:**

Kūh-e Sadgrid (25°40′N 60°35′E) is a range of mountains, lying parallel to the coast, rising about 8 miles inland of the head of Khalīj-e Chāh Bahār. In clear weather this range may be identified from the SW, where its remarkable summit rises to an elevation of 693 m.

A conspicuous radio mast (25°20′N 60°39′E) stands at an elevation of 210 m on the edge of the table-land (4.21) situated N of the town of Chāh Bahār; this mast is easily identified for some distance from seaward. A further prominent radio mast (red obstruction lights) stands within the town about 1 mile E of Damāgheh-ye Chāh Bahār (25°17′N 60°36′E) (4.14).

2 Four radio masts (25°29′N 60°32′E) (red and white, red obstruction lights) stand close together, at an elevation of 185 m, about 2 miles inland from the head of the bay; a further radio mast (position approximate), 2¾ miles SW, stands at an elevation of 180 m close inshore from the head of the bay.

Directions

4.20

1 From a position SSW of Damāgheh-ye Chāh Bahār (4.14) the approach to Khalīj-e Chāh Bahār leads N, passing (with reference to Damāgheh-ye Chāh Bahār Light (25°17′N 60°36′E) (4.14)):

Clear of a light-buoy (safe water) (7 miles WSW); and an obstruction, with a least depth over it of 16 m, which lies close NNW. Thence:

W of a light-buoy (E cardinal) (9 cables W) moored close off the spit extending W of Damāgheh-ye Chāh Bahār marking the E side of the entrance to Khalīj-e Chāh Bahār, thence:

2 E of Damāgheh-ye Puzim (7½ miles W) (4.31) and through to the main anchorage area and the pilot boarding position.

Chāh Bahār

General information

4.21

1 **Position and function.** Chāh Bahār (25°18′N 60°38′E) is situated on the SE side Khalīj-e Chāh Bahār (4.16), within the smaller bay of Bandar-e Chāh Bahār; it is the main town of the Shahristan area of Iran; the port handles containers, general and dry cargoes, bagged fertilisers and bagged grain. An Iranian Naval Base is situated close W of Damāgheh-ye Puzim (25°17′N 60°28′E).

Topography. Bandar-e Chāh Bahār is entered between Damāgheh-ye Chāh Bahār (25°17′N 60°36′E) and Ra's-e Ţis (3¾ miles N); shores on its NE side, for about 2¾ miles SE of Ra's-e Ţis, comprise cliffs, between 20 and 50 m high, fronting a table-land gradually sloping E. The S side of this table-land is made up of cliffy terraces; on its SE side, about 4 miles inland E of Ra's-e Ţis, it is in places precipitous. The S side of the bay is bordered by a reef and foul ground extending up to 3 cables offshore.

2 **Approach and entry** The port is approached from the vicinity of the main anchorage area, passing N of the light-buoy moored close W of the outer end of Shahid Beheshty Jetty (4.25).

Traffic In 2004 the port was used by 3 vessels with a total dwt of 88 773 tonnes.

Port Authority: Ports and Shipping Organisation, PO Box 9971654131, Chāh Bahār, Iran.

Limiting conditions

4.22

1 **Tidal levels.** Mean spring range about 1·8 m; mean neap range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

Density of water: 1·025 gms/cm^3.

Local weather. Prevailing winds are the NE and SW monsoons. SSE winds cause a heavy sea to break on the shores of the bay except in the vicinity of the town which is well sheltered. From about the middle of June to October the harbour is closed due to the swell generated by the SW Monsoon.

Arrival information

4.23

1 **Outer anchorage.** A main anchorage area with depths of over 10 m, soft mud bottom, lies close within the entrance to Khalīj-e Chāh Bahār; the anchorage is also used by vessels working lighters; vessels intending to use this anchorage should contact Konārak Control. During the SW Monsoon, when a heavy SSE swell is entering the bay, sheltered anchorage may be obtained on the W side of the bay, about 3½ miles E of the village of Konārak (4.17); this berth also affords good shelter from the *shamāl.*

2 A small vessel working anchorage within Bandar-e Chāh Bahār lies about 1 mile N of Damāgheh-ye Chāh Bahār (25°17′N 60°36′E) in depths of about 7 m, fine sand; local vessels anchor in depths of about 4 m about 5 cables from the town. In 1979 good anchorage was obtained, in a depth of about 13 m, with the white dome of the tomb on Damāgheh-ye Chāh Bahār, bearing 135°, 2¼ miles distant.

Pilotage is compulsory for both the harbour and the inner anchorage; pilots board in the main anchorage; see *Admiralty List of Radio Signals Volume 6 (3).*

3 **Tugs** are available.

Harbour.

4.24

1 **General layout.** The harbour facilities consist of Shahid Beheshty Jetty and Beach Jetties both situated on the S side of Bandar-e Chāh Bahār; N of the main jetties a breakwater extends W, then NW, from the head of the bay.

An Iranian Naval Base is situated in a bight 2½ miles W of Damāgheh-ye Puzim (25°17′N 60°28′E); a nautical college is also within this area.

2 **Flow.** Tidal streams are weak; any currents experienced will depend on the prevailing winds.

Principal marks. Except for the radio masts (4.19) there are no particularly prominent landmarks in the town, but the minaret of a mosque may be distinguished standing about 1¼ miles ENE of Damāgheh-ye Chāh Bahār; the aspect of the town is pleasant with palm trees interspersed among the buildings.

Climatic table. See 1.145 and 1.153.

Berths

4.25

1 **Shahid Beheshty Jetty,** the W jetty of the port, extends about 6 cables NW, then 2½ cables N, from the N side of the outer end of Damāgheh-ye Chāh Bahār (4.14); four berths, two each side of its outer end, include a container terminal and tanker berthing facilities. Each berth, 150 m in length, is suitable for use by vessels of up to 25 000 tonnes; alongside depths vary between 9 and 11 m.

Beach Jetty, the E jetty of the port, initially extends NE across the foul ground then NW to a position about 2 cables E of the head of Shahid Beheshty Jetty; it has four alongside berths with alongside depths of between 2 and 4 m; the jetty provides 480 m of berthing for barges, coastal trade vessels and smaller craft.

Port services

4.26

1 **Facilities.** Cranes (up to 50 ton capacity); barges; small hospital; deratting exemption certificates issued; there are no oily waste reception facilities.

Supplies. Fresh water by road tanker (maximum of 30 tonnes); fuel oil available by road tanker; limited provisions available.

Communications. Konārak Airport 38 km distant with connecting flights to Bandar ‘Abbas and Tehran.

KHALĪJ-E CHĀH BAHĀR TO DAMĀGHEH-YE MEYDĀN

General information

Chart 2851

Route

4.27

1 From a position S of Khalīj-e Chāh Bahār (25°20′N 60°32′E) the route leads W for 75 miles to a position S of Damāgheh-ye Meydān (25°24′N 59°05′E).

Topography

4.28

1 The coast between Damāgheh-ye Puzim (25°17′N 60°28′E) and the E entrance to Khalīj-e Puzim (4.32), 10 miles W, is faced with cliffs increasing in elevation to 60 m. Inland the great coastal plain continues W past Khalīj-e Puzim; mountains rise 12 miles inland and are fronted by some lower hills. Sapt Kūh (25°30′N 60°14′E) is a conical shaped hill, with an elevation of 90 m, standing about 5 miles NNW of the head of Khalīj-e Puzim.

The coast for the first 3 miles NW of Ra's-e Tang (25°21′N 59°54′E) is cliffy; farther W as far as Maki Sar, 16 miles W, it becomes low. Maki Sar, which rises to 30 m, is the only high part of this coastline; from here it continues low and sandy, intersected by creeks and wadis, as far as Damāgheh-ye Meydān (25°24′N 59°05′E).

2 The remarkable outline of a range of white clay cliffs, rising at their SE extremity to 319 m, stand about 10 miles NW of Ra's-e Tang (25°21′N 59°54′E); these cliffs then extend for 22 miles WNW. A vertical cliff, about 200 m in height, forms the E end of the range and shows up well from S and SW.

Depths

4.29

1 Depths of less than 10 m lie within 1 mile of the coast between Damāgheh-ye Puzim (25°17′N 60°28′E) and Khalīj-e Puzim, 10 miles W, they increase gradually in a steady gradient to seaward; within 1 cable of the shore there are numerous uncharted and isolated rocks, the result of rockfalls from the very unstable and crumbling cliff edge.

Principal mark

4.30

Landmark:

1 Kūh-e Gar (25°33′N 59°41′E) is a sharp double peak, with an elevation of 530 m, standing on the N side of the range of white clay cliffs; a further remarkable single peak rises 3½ miles WSW of Kūh-e Gar. From the SW, at a distance of over 30 miles, these summits appear as a group of three conical peaks and form a good landmark.

Directions

(continued from 4.14)

4.31

1 From a position S of Khalīj-e Chāh Bahār (25°20′N 60°32′E) the route leads W, passing:

S of Damāgheh-ye Puzim (25°17′N 60°28′E), the SE extremity of a promontory of low cliffs which forms the W entrance point to Khalīj-e Chāh Bahār; a light (beacon) is exhibited from the extremity of the point. Thence:

S of Baklang Rock (25°18′N 60°14′E), a dangerous, isolated, pinnacle rock, with a least depth over it of 0·8 m, which lies at the SE extremity of the shoal bank extending 2½ miles SE of Ras-e Rāshedi; the rock is not visible or identifiable in calm weather, but numerous fishing nets are set in its vicinity. A light-buoy (isolated danger) is moored close SE of the rock. Thence:

2 S of Ras-e Rāshedi (25°20′N 60°12′E), the E extremity of an almost inaccessible table-topped promontory, 40 m in height, which extends 5 miles WNW to the village of Gurdīm where the cliffs are slightly higher; the point should not be approached at night without the assistance of radar within the 20 m depth contour as soundings give little warning of the proximity of the shore. There are numerous rock falls from the very unstable cliffs and within 2 cables of the high water-line there are numerous uncharted rocks. Ras-e Rāshedi forms the W entrance point to Khalīj-e Puzim (4.32). Thence:

3 S of Ra's-e Tang (25°21′N 59°54′E), a rocky promontory on which stand some sandhills, 9 m in height. The promontory extends 1 mile S from the general line of the coast to which it is joined by a narrow isthmus; it has been reported to make a reasonable radar target. It is advisable not to approach the point in depths of less than 20 m as again the bottom shoals rapidly. Thence:

S of a detached shoal (25°18′N 59°14′E), with a least depth of 20 m, which lies 9 miles S of the entrance to Khowr Rabch (25°27′N 59°15′E), thence:

4 S of Damāgheh-ye Meydān (25°24′N 59°05′E), a point formed by brown table-topped hills, faced with white cliffs, rising to some 60 m in height and extending for about 3 miles W of the point. A shoal, with a least depth of 1·5 m, lies close SW of the point. Depths of less than 183 m were reported (1975) in an area 18 miles SW of Damāgheh-ye Meydān.

(Directions continue at 4.39)

Anchorages

Khalīj-e Puzim

4.32

1 **Description.** Khalīj-e Puzim (25°22′N 60°15′E) is entered between Ras-e Puzim, a point on the N side of an outer cliffy point, 105 m in high, and Ras-e Rāshedi (4.31), 5 miles W. Within the bay the shores are low and sandy with dunes; on the W side of the bay the land is part of the great low flat coastal plain (4.17); If entering the bay a good lookout for fishing nets should be maintained.

Puzim is a fishing village situated close under the cliffs on the E side of the bay, it is large for this part of Iran, but can only be approached from seaward at high water in a shallow draught vessel. A few fisherman live in a small encampment on the W side of the bay under the N side of Ras-e Rāshedi; the bay provides good fishing for the local fisherman.

2 Rūdkhāneh-ye Sirgān (not charted) is a river which flows into a large salt water creek on the NE side of the bay, the entrance is low and sandy and is not always identifiable; a drying bar extends about 5 cables SW across the entrance. The creek may be entered at high water when there is a bar depth of 1 m; within the creek are depths up to 3 m. Rūdkhāneh-ye Kahīr (not charted) is another river which enters a creek 1½ miles N of Ras-e Rāshedi (4.31); across its entrance there is an almost drying bar which may

be crossed at high water when there are depths of more than 2 m.

3 **Anchorage** may be obtained in the centre of Khalīj-e Puzim in a depth of about 8 m, sand.

Ra's-e Tang

4.33

1 **Description.** Ra's-e Tang (25°21′N 59°54′E) is a rocky promontory, connected to the shore by a sandy isthmus, 16 miles W of Ras-e Rāshedi. The coast, between the W extremity of the table-topped promontory which extends WNW from Ras-e Rāshedi and Ra's-e Tang, forms a bay whose shores are bordered by low sand hills. A small group of brown hills near its W end, 4 miles NE of Ra's-e Tang, make a good landmark. There are several detached shoal patches in the vicinity of Ra's-e Tang; a shoal, with a least depth of 4 m, lies 7 cables SE of the E end of the promontory; shallower patches lie W of its W end.

2 Bandar-e Tang (not charted) is a village situated 1 mile N of Ra's-e Tang; a group of date palms and a few large trees grow in its vicinity and are prominent. A creek, entered E of the promontory, has a depth, at half tide, in its entrance of 1·5 m and is often used by dhows. The mountain range inland of the great coastal plain of Khalīj-e Chāh Bahār (4.17) becomes lower as it extends W and N of Ra's-e Tang and, as such, becomes less prominent.

Anchorage sheltered from E winds, may be obtained by small vessels in a shallow bay NW of Ra's-e Tang.

Khowr Darak

4.34

1 **Description.** Khowr Darak (not charted) enters the sea 6 miles NW of Maki Sar (25°24′N 59°36′E) near the village of Darak. The creek has a very prominent entrance which shows up well from seaward as a break in the shoreline; it is usually dry with water only flowing during the rainy season. The foreshore along this part of the coast consists of numerous flat rocks and sand, with the rocks extending seaward for up to 1 cable below the high water line.

Anchorage may be obtained off the entrance to Khowr Darak in a depth of 5 m.

Damāgheh-ye Meydān

4.35

1 **Description.** Damāgheh-ye Meydān (25°24′N 59°05′E) lies about 2 miles SSW of the village of Meydān; the coastline in this vicinity is radar conspicuous. Depths shoal rapidly on the extensive coastal bank off the point; a slight E set may be experienced in this vicinity.

Anchorage. Good anchorage may be obtained about 5 miles S of Damāgheh-ye Meydān in a depth of 20 m, mud and broken shell; a light-buoy (S cardinal) (4.39) is moored about 6½ miles SW. Anchorage may also be obtained about 2½ miles S of the entrance to Khowr Rabch (25°27′N 59°15′E) in a depth of 8 m, sand.

DAMĀGHEH-YE MEYDĀN TO RA'S-E JĀSK

General information

Charts 2851, 2888

Route

4.36

1 From a position S of Damāgheh-ye Meydān (25°24′N 59°05′E) the route leads W for about 74 miles to a position S of Ra's-e Jāsk (25°39′N 57°46′E).

Topography

4.37

1 Between Damāgheh-ye Meydān (25°24′N 59°05′E) and Gūgsar, 16 miles NW, the coast is low and sandy with higher ground some 3½ miles inland. Habad (25°35′N 58°47′E) is a small village situated 3 miles NW of Gūgsar on the W of two escarpments, each about 30 m in height, which are prominent up to 3 miles from seaward; the coast then becomes flat and sandy with the occasional palm tree. A range of bare white sandhills, 30 m in height, extends 6 miles W along the coast from the mouth of Rūdkhāneh-ye Sadīch (25°47′N 58°45′E). From the W end of these hills to Ra's-e Jagīn (4.39), 26 miles W, the coast is very low and intersected by mangrove swamps; the mouths of numerous creeks, many of which are used by local craft, lie along this stretch of the coast.

2 Kūh-e Gahrat (25°37′N 58°49′E), which stands 4 miles NNW of Gūgsar, has three conical peaks, the N and highest rises to 137 m; a flat-topped hill rises from the plain 9 miles E of Kūh-e Gahrat.

Kūh-e Darhaman (25°48′N 58°54′E), which stands 12 miles NNE of Kūh-e Gahrat, rises to 582 m; on the W side of the peak lies an extensive valley. The coastal mountain range extends W from the vicinity of Kūh-e Darhaman towards Jāsk, 62 miles WSW, with elevations of over 600 m.

3 Gūr Kūh (26°07′N 58°25′E) stands 30 miles inland at an elevation of 1918 m and appears to be almost detached from the neighbouring mountains; from SE, its E side shows as a great bluff, but from W its summit appears rounded.

Principal mark

4.38

Major light:

1 Ra's-e Jāsk Light (25°38′·3N 57°45′·8E) (red metal framework tower) is exhibited from the SW extremity of Ra's-e Jāsk.

Directions

(continued from 4.31)

4.39

1 From a position S of Damāgheh-ye Meydān (25°24′N 59°05′E) the route leads W, passing:

S of the stranded wreck (25°25′N 59°00′E) which lies on the coast close S of the village of Beyāhī; and

S of the light-buoy (S cardinal) moored close within the 20 m depth contour 5¼ miles S of the wreck; it has been reported that the position of this buoy is unreliable; see 4.3. Thence:

2 S of Ra's-e Jagīn (25°34′N 58°06′E), a very low and sandy point; a drying sandspit extends about 5 cables SW of the point, but its configuration probably alters after heavy rain or storms. The point is particularly difficult to identify and the presence of the hills inland causes distances offshore to be easily over-estimated; two beacons stand on the coast about 2½ miles WNW of the point. Great care is necessary if approaching Ra's-e Jagīn as the coastal bank in this vicinity is steep-to, soundings give little guide as depths of more than 30 m lie within 1 mile of the sandspit. Thence:

3 S of Ra's-e Jāsk (25°39′N 57°46′E), a low point which forms the SW extremity of the peninsula extending a considerable distance from the general line of the coast. Two white radomes (4.54) and a

beacon (9 m in height) stand on the point; the peninsula separates Khalīj-e Sharqī-ye Jāsk (4.42) from Khalīj-e Jāsk (4.60). Ra's-e Jāsk Light (4.38) is exhibited from the SW extremity of the point; water towers (obstruction lights) stand 2½ miles NE of the point and radio masts (obstruction lights) 1 mile ENE and 5 cables NNE of the point.

(Directions continue at 4.56)

Anchorages

Gūgsar

4.40

1 **Description.** Gūgsar (25°33′N 58°50′E) lies close E of a small bay protected by a rocky point; the village is of some importance within the area and is inhabited mainly by fishermen. A group of palms stand immediately W of the village and a derelict looking, square, two storey customs house stands within the village; the palms and the building are prominent from seaward. A shoal, with a least depth of 1·4 m, lies about 1½ miles W of the rocky point close W of Gūgsar.

2 **Approach.** Small vessels may approach Gūgsar during daylight quite safely from S, but visibility on this part of the coast can be poor due to haze until well after midday. Gūgsar is conspicuous on radar from about 8 miles offshore. Small fishing boats may be encountered with nets extending up to about 30 m; larger fishing dhows may also be encountered with nets extending up to 5 cables.

Anchorage. Good anchorage may be obtained 5 miles S of the coast at Gūgsar in a depth of about 20 m, mud and broken shell.

Rūdkhāneh-ye Gābrīk

4.41

1 **Description.** Rūdkhāneh-ye Gābrīk (25°39′N 58°28′E) is one of the largest of the rivers which enter the mangrove swamps between Ra's-e Sadīch (25°34′·1N 58°41′·3E) and Ra's-e Jagīn, 32 miles W; a shallow boat channel lies at the E end of the bar across the river's entrance. An isolated sandhill, covered with scrub, stands about 1¼ miles W of the river's mouth. Rūdkhāneh-ye Jagīn is a similar river entering the mangrove swamps W; a plain extends from this vicinity to the foot of the coastal hills which stand farther N.

Current. Some years ago a NE current was experienced between the entrance to Rūdkhāneh-ye Gābrīk and Ra's-e Jagīn.

2 **Anchorage** may be obtained off the entrance to Rūdkhāneh-ye Gābrīk about 2 miles offshore, in a depth of 9 m, but depths decrease rapidly towards the coast.

Khalīj-e Sharqī-ye Jāsk

4.42

1 **Description.** Khalīj-e Sharqī-ye Jāsk is a bay entered between Ra's-e Jagīn (25°34′N 58°06′E) (4.39) and Ra's-e Jāsk (4.39), 18 miles WNW; the NE shore is low and fringed by a drying sandbank which extends up to 5 cables offshore. At the head of the bay hills approach to within 2 km of the shore; Kūh-e Hūshdān (25°46′N 57°58′E) is a ridge of white cliffs rising to 507 m which, from W, appears wedge-shaped.

Chāhrū is a village, with a few date palms, situated near the shore at the head of the bay, S of Kūh-e Hūshdān. The NW shore of the bay is alternately low cliffs and sandy beaches; white cliffs, 12 m high, extend between 1¾ miles and 3 miles NE of Ra's-e Jāsk, sandy beaches lie on each side of these cliffs. A military airfield is situated close inland.

2 **Anchorage**, somewhat sheltered from W winds, may be obtained in depths between 11 and 15 m, close off the NW shore of Khalīj-e Sharqī-ye Jāsk. As the bay is open SE there is usually a light surf on the beach which becomes heavy between June and October, the period of the SW Monsoon, although at this time there may be only a slight ground swell in the bay; in winter the bay is open to any winds from NE and E. During a strong *shamāl* the wind in the bay is from W, it has been reported that in these conditions the anchorage is good, but a considerable swell rolls in around Ra's-e Jāsk, causing any vessel at anchor to ride uneasily. A submarine cable is laid SW from a position on a sandy beach about 1½ miles WNW of Ra's-e Jāsk.

3 **Landing.** The best landing place within Khalīj-e Sharqī-ye Jāsk is on the sandy beach between the beacon (black and white stone structure, 9 m in height) (25°38′·4N 57°46′·3E) which stands ENE of Ra's-e Jāsk and the white cliffs farther NE.

IRAN – BĪĀBĀN COAST

GENERAL INFORMATION

Chart 2888

Area covered

4.43

1 This section describes the Bīābān district of Iran on the E side of the approaches to Persian Gulf between Jāsk (25°39′N 57°46′E) and Khowr-e Mīnāb, 100 miles NNW, the area is thinly populated with few villages and towns, but is under development; inhabitants are mainly fishermen.

It is arranged as follows:

Ra's-e Jāsk to Ra's al Kūh (4.49).
Ra's al Kūh to Khowr-e Mīnāb (4.62).

Topography

4.44

1 The coast of the Bīābān district is very low, a plain of varying width extends inland to the foot of the mountains which, in clear weather, make good marks. A feature of the Bīābān district is the Mins, dangerous quicksands formed by the sun drying the surface ground whilst the soil below remains in a semi-fluid condition. These quicksands occur chiefly along the coast between the firm damp strip near the water's edge and the soft dry ground farther inland.

Radar characteristics

4.45

1 As the shore is visible only from a short distance, care should be taken to avoid over-estimating distance from the coast, the appearance of the higher land in the background can be especially misleading. The coastline provides a poor radar return, mariners should be aware that the radar picture will not usually resemble that of the charted coastline.

2 Kūh-e Mobārak (25°51′N 57°18′E), and the range of hills which extend N from a short distance ENE, are conspicuous on radar and therefore useful to vessels entering Persian Gulf. However, although visible on radar

at a distance of over 15 miles the range of hills cannot be identified for certain until within this distance, the identification of Kūh-e Mobārak is important so as to determine if the radar picture is in fact the hills, or the coastline which runs parallel with them; accurate fixing by radar is not normally possible until within 10 miles of the coast.

Depths

4.46

1 Except at Ra’s al Kūh (25°48′N 57°18′E), the coastal bank extends for some distance from the coast, depths shoal gradually and the contours are well delineated such that, if carefully observed, they give timely warning of approach to the shore.

Flow

4.47

1 Tidal streams off the coast of the Bīābān set N with the in-going stream, and S with the out-going and attain a considerable strength, occasionally a rate of up to 2 kn may be experienced when rounding Ra’s al Kūh and the coast N of the point.

Anchorage

4.48

1 There is no shelter from the *shamāl* on the Bīābān coast, but the bottom of grey-green mud provides a good holding ground.

RA’S-E JĀSK TO RA’S AL KŪH

General information

Charts 2888, 3171

Route

4.49

1 From a position of Ra’s-e Jāsk (25°39′N 57°46′E) (4.39) the route leads WNW for 32 miles to a position SW of Ra’s al Kūh (25°48′N 57°18′E).

Topography

4.50

1 The coast between Khalīj-e Jāsk (25°42′N 57°43′E) and Ra’s al Kūh, 20 miles WNW, is low and sandy with tufts of grass; sand dunes along the coast vary between 1 and 4 m in height. Inland is swampy and there are several shallow creeks which, at times, connect the swamps with the sea; groves of date palms also grow some distance inland.

Khowr-e Hamād (25°46′N 57°26′E) (not charted) is a shallow creek 19 miles WNW of Ra’s-e Jāsk used by local craft.

Traffic separation scheme

4.51

1 The Ra’s al Kūh Traffic Separation Scheme has been established between 6 and 12 miles SW of Ra’s al Kūh (25°48′N 57°18′E); an Inshore Traffic Zone lies between the coast and the N bound lane.

The TSS is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See the *Annual Summary of Admiralty Notices to Mariners.*

Tidal stream

4.52

1 Between Ra’s-e Jāsk (25°39′N 57°46′E) and Ra’s al Kūh, 27 miles WNW, the tidal streams along the coast set W with the in-going stream, and E with the out-going; near Ra’s-e Jāsk the streams are weak, but the rate increases towards Ra’s al Kūh; see 4.47

Navigational aids

4.53

1 The lights and light-buoys along the Bīābān coast are reported to be unreliable; they may be missing, unlit or out of position. Vessels should take particular caution when navigating along this stretch of the coast.

Principal marks

4.54

1 **Landmarks:**

Zīr Kūh (25°49′N 57°32′E) is a ridge, rising to an elevation of 125 m, with cliffs on its S side extending 2 miles W; the ridge is radar conspicuous.

Two conspicous white radomes (25°38′·5N 57°45′·9E) stand among several radio aerials close NNE of Ra’s-e Jāsk. A radio mast (red obstruction lights; 45 m in height) stands close NE of the radomes; another mast (red obstruction lights) stands near the shore 1 mile ENE.

2 Two conspicuous water towers (25°39′·6N 57°48′·0E) (red and white chequered, 50 m high; obstruction lights) stand close together 2½ miles NE of Ra’s-e Jāsk.

Major light:

Ra’s al Kūh Light (25°50′·2N 57°18′·5E) (metal framework tower, 20 m in height) is exhibited from a small mound a short distance inland 2½ miles N of Ra’s al Kūh (4.56).

Other aid to navigation

4.55

1 **Racon:**

Ra’s al Kūh Light (25°50′·2N 57°18′·5E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 4.39)

Chart 2888

4.56

1 From a position S of Ra’s-e Jāsk (25°39′N 57°46′E) the route leads NW, passing:

SSW of Mason Shoal (25°37′N 57°42′E), with a least depth of 3·7 m, marked by a light-buoy (S cardinal). A wreck, with a least depth over it of 31 m, lies about 5 miles W of the light-buoy. Thence:

2 SSW of an isolated rocky shoal (25°40′N 57°28′E) with a least depth over it of 18·2 m; and Gahha Shoal, with a least depth of 2·4 m, 2 miles N; and into the N bound lane of the TSS (4.51). It is recommended not to approach the coast within the 50 m depth contour between Ra’s-e Jāsk and Ra’s al Kūh in the vicinity of Gahha Shoal. Thence:

SW of Ra’s al Kūh (25°48′N 57°18′E), a very low point; the coastal bank, which is steep-to, extends about 5 cables offshore in the vicinity of the point. Ra’s al Kūh Light (4.54) stands 2½ miles N; a light-buoy (W cardinal) is moored on the coastal bank close W of the point.

(Directions continue at 4.65)

Jāsk

General information

4.57

1 **Description.** The village of Jāsk (25°39′N 57°46′E) is situated along the NW shore of the short peninsula forming the SE side of Khalīj-e Jāsk (4.60); a ruined stone fort stands at the S end of the village.

Climatic table. See 1.145 and 1.152.

Berths

4.58

1 A breakwater pier extends 3 cables NNW from a position on the SE side of the entrance to Khalīj-e Jāsk close NNE of Ra's-e Jāsk Light; A berth, 150 m in length, is situated on the inner part of the outer end of the breakwater; a light (beacon) is exhibited from its outer end. An Iranian Naval facility is based at Jāsk.

2 Jāsk Creek (25°42′N 57°47′E) is entered 3½ miles NNE of Ra's-e Jāsk through a winding channel leading between sand dunes and water-logged scrub. The channel, 4 miles long with a least depth of 0·6 m, leads to an extensive drying sand-flat, but greater depths may be found within. There is a small concrete jetty at the S end of the creek which can accommodate a large dhow afloat at all states of the tide.

Port services

4.59

1 **Facilities.** Limited medical facilities.

Supplies. Fresh water available (20 litre containers); provisions (fresh fish plentiful, limited quantities of fresh vegetables); diesel fuel (drums).

Communications. Civil flights operate to Chāh Bahār (4.21) and Bandar 'Abbās (5.49) from the military airfield 3 km ENE of Ra's-e Jāsk.

Anchorages

Khalīj-e Jāsk

4.60

1 **Description.** Khalīj-e Jāsk (Jāsk Bay) (25°42′N 57°43′E), open W and SW, is entered between Ra's-e Jāsk (4.39) and the low swampy coastline 9 miles NW; the shore on the E side of the bay is composed of sandhills between 3 and 6 m in height, on the N side the shoreline is low and sandy. Several prominent mountains and hills, which stand N of Khalīj-e Jāsk, are visible from seaward long before the coast is identified.

2 Kūh-e Gīkan (25°50′N 57°43′E) is an isolated peak, rising to an elevation of 442 m, standing 9 km inland of the N shore of the bay. The W side of the peak forms a great bluff which, except from W, shows up well against the background of the mountains. Par Kūh (25°56′N 57°38′E), which stands 13 km NW of Kūh-e Gīkan, rises to an elevation of 920 m; the peak is separated from Kūh-e Gīkan by a gap with precipitous sides. On its W side the peak has a long slope and a very serrated crest; on its S side, 5½ km SSE of the summit, there is a natural rock pillar rising to an elevation of 393 m.

3 **Approach.** Khalīj-e Jāsk may best be approached passing W, then N, of Mason Shoal (25°37′N 57°42′E) (4.56). Gahha Shoal (25°42′N 57°28′E) and an isolated rocky shoal, with a least depth of 18·2 m, lie in the W approach to the bay.

Mean tidal levels. Mean spring range about 1·8 m; mean neap range about 1·0 m. See *Admiralty Tide Tables Vol 3.*

Tidal stream. A relative increase in the strength of the tidal stream may be experienced within the channel between Ra's-e Jāsk and Mason Shoal, 3¼ miles WSW.

4 **Anchorage** may be obtained within Khalīj-e Jāsk 2¼ miles NNW of Ra's-e Jāsk Light (25°38′·3N 57°45′·8E) (4.38) in a depth of about 8 m, soft grey mud, but this anchorage is open to the *shamāl*. Smaller vessels may obtain anchorage 1¼ miles N of Ra's-e Jāsk Light in a depth of about 7 m; although this anchorage berth is again open to the *shamāl*, it is partially sheltered from S winds by the flat extending 1 mile NW from the point.

Chart 3171

Ra's al Kūh

4.61

1 **Description.** Ra's al Kūh (25°48′N 57°18′E) (4.56) is a very low point which forms the SW corner of Iran; Ra's al Kūh Light (4.38) is exhibited 2½ miles N of the point. The entrance to a small creek, frequented by local craft, lies close NW of Ra's al Kūh; drying sands extend about 3 cables from its mouth.

Kūh-e Mobārak (25°51′N 57°18′E), a remarkable light coloured and isolated rock, 101 m in height, rises from the swampy plain a short distance inland and 3 miles NNE of Ra's al Kūh. The rock is conspicuous from seaward except when seen against the low-lying hills behind, when the low land is not in sight, Kūh-e Mobārak appears as an outlying rock; a small hole in its upper E corner appears open when seen from NW or SE; see 4.45.

2 **Anchorage** may be obtained 1 mile SE of Ra's al Kūh, between 5 and 8 cables offshore, in depths between 10 and 20 m, however this anchorage is not protected from the *shamāl* which, in this vicinity, tends to blow from WNW.

RA'S AL KŪH TO KHOWR-E MĪNĀB

General information

Chart 2888

Route

4.62

1 From a position SW of Ra's al Kūh (25°48′N 57°18′E) the coastal route leads NNW for 82 miles to a position SW of Khowr-e Mīnāb Beacon (27°05′N 56°48′E).

Topography

4.63

1 A bluff rises a few miles inland NNE of Kūh-e Mobārak (25°51′N 57°18′E) and forms part of a light-coloured ridge, which starts from a position about 2 miles NE of Kūh-e Mobārak, trending NNW and increasing in height; on its W side a white rocky column stands out prominently. A wedge-shaped hill, the summit of a comparatively short ridge, stands NNE of Ra's al Kūh which from W appears conical in shape. Mīskī (23°54′N 57°19′E) is a small village, with a customs office and police post, 3 miles N of Kūh-e Mobārak.

2 Kūh-e Kare'ī (26°11′N 57°17′E) is a remarkable light coloured hill, rising to 552 m, standing E of Ra's-e Gonārī (4.65), it forms part of the coastal ridge which continues N almost parallel with the coast; when seen from W it presents a jagged outline, but from NW, or S, it appears as a peak with almost precipitous sides. The coast from Ra's-e

Gonārī (26°11′N 57°12′E) to Bandar-e Sīrīk, 20 miles NNW, is low; thence for some distance farther N it is backed by sandhills. A number of small rivers and creeks enter the sea along this stretch of the coast, but all are liable to silting, or are closed by sandbars; they are no longer used by local craft.

3 Tāhrū is a village 2 miles NNE of Bandar-e Sīrīk, numerous date trees grow in its vicinity. The coastal range approaches within 3 miles of the coast near the small village of Gorūk (26°34′N 57°06′E) where there is a white fort standing in a date grove, but is inconspicuous from seaward. The sandhills along this stretch of the coast are between 9 and 12 m high; a gap in their line identifies the position of the village. About 13 km farther N another low spur of the coastal range approaches the coast.

4 Kūhestak (26°48′N 57°02′E) is a village which may be identified by a large conspicuous fort between 24 and 30 m in height standing on a small hill close E of the village; some date trees grow near the village. The hills recede from the coast in this vicinity leaving a plain between 10 and 20 miles wide, parts of which are fertile; behind this broad coastal plain are high mountains which are snow capped for part of the year. An overhanging peak or sharp mountain pinnacle (not charted) stands about 20 miles NE of Kūhestak, from SSW it appears as two peaks at the S end of a level-crested range which extends over 6 miles NNW.

5 Rūdkhāneh-ye Zārrānī flows into a small creek 6½ miles NW of Kūhestak; small boats may obtain shelter within the creek. On its S side lies a small village which may be identified by a turtle backed hillock and some date palms; the land in the vicinity is otherwise low and sandy.

Principal marks

4.64

1 **Landmarks:**

Kūh-e Gok (26°12′N 57°33′E), which rises to an elevation of 1394 m, appears conical-shaped from NW or S. Except from close inshore, where it is obscured by the lower coastal ridge, the peak makes a good mark; a broad valley lies between the coastal ridge and the peak.

Double Peak (26°26′N 57°15′E) is a conspicuous double peak, which stands at an elevation of 146 m, 19 km W of the mouth of the River Gaz; except for this feature, the coastal hills trending N from Kūh-e Kare'ī (4.63), are irregular in outline with no other remarkable peaks.

2 **Major light:**

Bandar-e Sīrīk Light (26°30′·0N 57°05′·4E) (red circle topmark) exhibited from a position close E of Bandar-e Sīrīk (4.65).

Directions

(continued from 4.56)

Charts 3171, 3172, 3173

4.65

1 From a position SSW of Ra's al Kūh (25°48′N 57°18′E), within the N bound lane of the TSS (4.51), the route leads NNW, passing:

WSW of Ra's al Kūh (4.56), thence:

WSW Ra's al Kūh Light (25°50′·2N 57°18′·5E) (4.54), thence:

WSW of Proserpine Rock (25°57′N 57°16′E) which lies close off the coast 7 miles NNW of Ra's al Kūh Light; the rock is wedge-shaped, 16 m in height, with its bluff end facing W. Thence:

2 WSW of Ra's osh Shīre (26°01′N 57°12′E), a very low point from which drying flats extend some distance W. A light-buoy (W cardinal) is moored 3 miles WSW of the point on the edge of the shallow coastal bank of sand and mud. It has been reported that the inland ridge of hills, which stand 3 miles NE of Ra's osh Shīre, and the coastline 3 miles SE of the point, show prominently on radar. Ra's osh Shīre and the coast N of the point should be given a wide berth due to the extensive coastal bank. Thence:

3 WSW of Ra's-e Gonārī (26°11′N 57°12′E), a very low swampy point partly covered at high water; patches of mangroves grow on the coast in this vicinity. Thence:

WSW of a stranded wreck (26°26′N 57°02′E) which lies on the edge of the drying bank WSW of a creek into the head of which flows Rūdkhāneh-ye Gaz, thence:

4 WSW of Bandar-e Sīrīk (26°30′N 57°05′E), a small inlet whose entrance is difficult to identify from seaward as the coast is low with sand dunes on the foreshore. Bandar-e Sīrīk Light (4.64) is exhibited from a position inland, about 1 mile NE of the entrance and SW of the village of Sīrīk. Thence:

WSW of the light-buoy (27°03′N 56°46′E) moored 3½ miles SW of Khowr-e Mīnāb Light-beacon (27°05′N 56°48′E) which stands 2 miles S of Khowr-e Mīnāb.

(Direction for the approach to Bandar-e Shahīd Bāhonar and Bandar-e Shahīd Rajāī are given at 5.8)

Mīnāb

Charts 3173, 2888

General information

4.66

1 **Description and function.** Mīnāb (27°08′N 57°05′E) is a town situated about 12 miles inland, close S of Rūdkhāneh-ye Mīnāb, the mouth of which is composed of a delta of three streams; very little of the river waters actually reach the sea as it is nearly all diverted for irrigation; a dilapidated fort stands on a hill close to the river near the town. Khowr-e Mīnāb (27°07′N 56°48′E), the port for Mīnāb, is a salt water mangrove creek entered 7 miles NW of the delta of the Rūdkhāneh-ye Mīnāb; similar creeks are on either side. The main exports include dates, henna, wool and ghee; imports include rice and manufactured goods.

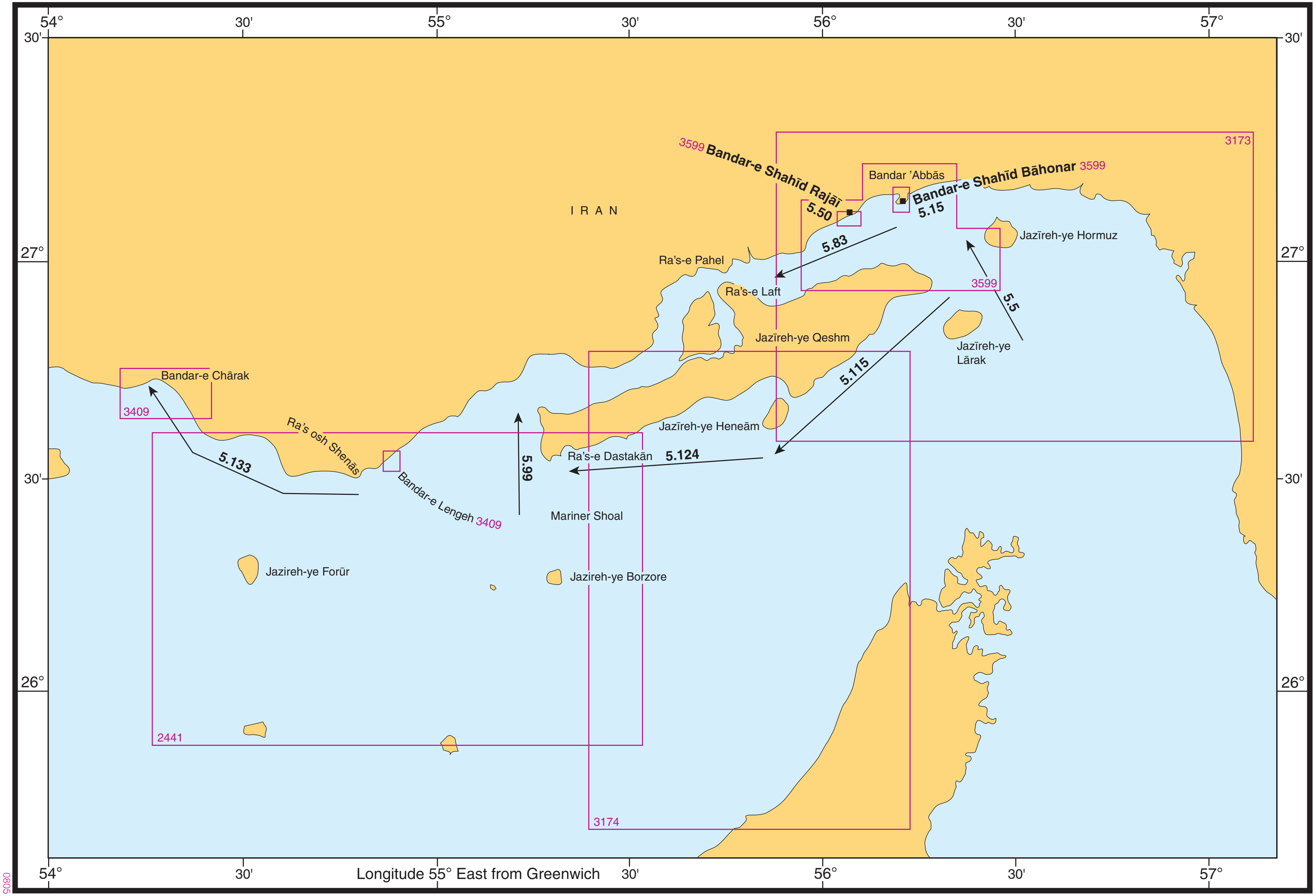
2 **Topography.** Between Kūhestak (26°48′N 57°02′E) and Khowr-e Mīnāb, 23 miles NW, the coast is low and swampy with mangroves growing in places; the coast continues in a similar manner as far as Bandar 'Abbās.

Approach. The port is approached from the vicinity of a light-buoy (27°03′N 56°46′E) moored 3½ miles SW of Khowr-e Mīnāb Light-beacon (27°05′N 56°48′E).

Local weather. Off this part of the coast a strong *shamāl* blows from WSW and raises a heavy sea.

3 **Local knowledge** is required; the bar nearly dries and is impracticable to cross during a *shamāl*; at high water the banks of the creek are flooded.

Chapter 5 - the coast of Iran from Khowr-e Mīnāb to Bandar-e Chārak, including Jazīreh-ye Qeshm



CHAPTER 5

THE COAST OF IRAN FROM KHOWR-E MĪNĀB TO BANDAR-E CHĀRAK, INCLUDING JAZĪREH-YE QESHM

GENERAL INFORMATION

Chart 2837

Scope of the chapter

5.1

1 This chapter describes the coast of Iran from Khowr-e Mīnāb (27°07′N 56°48′E) to Bandar-e Chārak (26°44′N 54°16′E), including the island of Jazīreh-ye Qeshm.

The chapter is divided into the following sections:

Bandar-e Shahīd Bāhonar, Bandar-e Shahīd Rajāī and their approaches (5.4).
Khūrān Strait (5.78).
South side of Jazīreh-ye Qeshm (5.114).
Khūrān Strait to Bandar-e Chārak (5.133).

2 Also described are the ports of:

Bandar-e Shahīd Bāhonar (27°09′N 56°12′E) (5.15).
Bandar-e Shahīd Rajāī (27°06′N 56°04′E) (5.50).

Regulations

5.2

1 **Notice of ETA.** All vessels bound for Iranian ports should report on passing Ra's al Kūh (25°48′N 57°18′E) to Bandar 'Abbās port control through Bandar 'Abbās CRS, giving notice of ETA at the Strait of Hormuz and their port of destination.

See *Admiralty List of Radio Signals Volume 6 (3).*

Aids to navigation

5.3

1 Aids to navigation throughout the area described in this chapter are reported to be unreliable. They may be missing, unlit or out of position. Vessels should navigate with particular caution.

BANDAR-E SHAHĪD BĀHONAR, BANDAR-E SHAHĪD RAJĀĪ AND APPROACHES

GENERAL INFORMATION

Chart 3173

Area covered

5.4

1 This section describes the ports of Bandar-e Shahīd Bāhonar (27°09′N 56°12′E) and Bandar-e Shahīd Rajāī (27°06′N 56°04′E), and their approaches; also included are Hormozgan Steel Complex Marine Terminal (5.45) and Bostānū Shipyard (5.73).

It is arranged as follows:

South-eastern Approach (5.5).
Bandar-e Shahīd Bāhonar (5.15).
Bandar-e Shahīd Rajāī (5.50).

SOUTH – EASTERN APPROACH

General information

Charts 2888, 3173

Route

5.5

1 From a position SE of Jazīreh-ye Lārak (26°52′N 56°22′E) the route leads NW for 25 miles to the merchant vessel anchorage (27°04′N 56°15′E) (5.27) in the E entrance to Khūrān Strait (5.78).

Principal marks

5.6

1 **Landmarks:**

Posht Kūh (27°37′N 56°40′E) stands 33 miles NE of Bandar 'Abbās and is a very prominent feature when seen from the entrance to Persian Gulf; the W side of its upper part is in the form of a bluff.

The ruins of a fort (26°57′·6N 56°16′·6E) stand within the N part of the town of Qeshm (5.12), it can be identified by a seven arched building standing close N, but is reportedly difficult to identify from S.

2 The ruins of a fort (27°06′·1N 56°27′·1E) stand close S of Ra's ol Masheh, the N extremity of Jazīreh-ye Hormoz (5.13); from seaward the NE side of the fort presents a remarkable spectacle, being coloured a vivid red purple by the red oxide dust worked and shipped from the island; a minaret, 21 m high, stands close SSW of the fort.

Major light:

Dīdāmar Light (26°28′·5N 56°32′·3E) (2.10).

Other aids to navigation

5.7

1 **Racons:**

Dīdamār (Little Quoin Island) (26°29′N 56°32′E).
Jazīreh-ye Lārak (26°52′N 56°22′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

5.8

1 From a position SE of Jazīreh-ye Lārak the track leads NW, passing (with reference to Jazīreh-ye Lārak Light (26°51′·8N 56°21′·5E)):

NE of Jazīreh-ye Lārak (5.14) from which a light (metal framework tower and white round building, 30 m in height) is exhibited, thence:

SW of the outer end of Euphrates Patch (10 miles NNE), with a least depth of 2·3 m over it, which forms the edge of the coastal flat extending from SW side of Jazīreh-ye Hormoz (5.13). A light-buoy (W cardinal) is moored close S of the patch; the light-buoy (pillar, special), moored 8 cables ESE, should not be approached within 500 m. Thence:

2 NE of the light-buoy (red pillar) (6 miles NNW) moored on the edge of the coastal bank E of the town of Qeshm (5.12), thence:

SW of the light-buoy (safe water) (13 miles N) and through to the merchant vessel anchorage (5.27).

Useful mark:

Kūh-e Genow (27°26′N 56°09′E) (Chart 2837) a detached mountain of irregular outline standing about 16 miles NNW of Bandar ‘Abbās.

(Directions continue for Bandar-e Shahīd Bāhonar at 5.37, for Bandar-e Shahīd Rajāī at 5.70, and for Khūrān Strait at 5.88)

Side channel

North of Jazīreh-ye Hormoz

5.9

1 **Description.** An inshore channel (27°07′N 56°27′E) lies between the N side of Jazīreh-ye Hormoz (5.13) and the mainland.

Topography. The mainland coast between Khowr-e Mīnāb (27°07′N 56°48′E) (4.66) and Bandar ‘Abbās, 27 miles WNW, is low, swampy and fringed by a mud flat extending between 1 and 2 miles offshore.

Depths. A least charted depth of 5·1 m lies about 3½ miles W of Ra’s ol Masheh (27°06′·2N 56°27′·1E); the channel is reportedly used by local vessels with draughts of up to 7 m.

2 **Hazard.** A 5 m depth (reported 1965) lies close N of the charted anchorage berth; more uncharted shoal depths may lie within the fairway.

Pilotage is compulsory for vessels proceeding to the anchorage; pilot boards in the merchant vessel anchorage SE of Bandar-e Shahīd Bāhonar (5.27) along with any stevedores required; vessels may depart without a pilot.

Tidal streams in the anchorage set WNW with the in-going stream and ESE with the out-going at rates of between 1½ and 2 kn.

Directions

5.10

1 From a position about 1¾ miles E of the E side of Jazīreh-ye Hormoz the track leads NW passing S of the light-buoy (conical) (27°06′·4N 56°29′·3E) moored near the S edge of the spit extending S from the coastal flat; it then continues W towards the anchorage.

Anchorage

5.11

1 Anchorage may be obtained about 4 cables ENE of Ra’s ol Masheh (27°06′·3N 56°27′·5E) in depths of 12 to 14 m, mud; this anchorage, which is used by vessels loading red oxide, is sheltered except from E winds, but when they occur a vessel may need to shift to a berth W of Ra’s ol Masheh. Small vessels may obtain anchorage closer inshore near the village; see Hazard (5.9).

Anchorages and harbours

Chart 3599

Qeshm

5.12

1 **Description.** Qeshm (26°58′N 56°16′E) is a town at the NE end of Jazīreh-ye Qeshm (5.80) situated between small groves of dates palms; earthquakes have in the past destroyed great parts of the town and the fort standing near the shore in the centre of the town is in ruins. Behind the town, and S of it, the land rises in a gradual slope to Qeshm bluff which on its N and W sides is precipitous; a flat summit, 168 m high, stands 3 miles W of the town.

Anchorage may be obtained off the coastal bank NW of Qeshm, about 1¾ miles offshore, in depths of between 10 and 15 m, soft mud; see 5.27.

2 **Prohibited anchorage.** a prohibited anchorage area extends NNE from the shore, NW of the fort, over an area of disused cables.

Berths. A small harbour enclosed by breakwaters, entered from N, lies close SE of the town. A boat jetty, 122 m long, extends N from a position close NNW of the fort; a pier, about 400 m long with dolphins at its head, extends NNE from the coast 2½ miles WNW of the fort.

Tidal streams over the banks E of the town can attain rates of 2 kn at springs reportedly causing tide rips and races.

Chart 3173

Hormoz

5.13

1 **Description.** Hormoz (27°06′N 56°27′E) is a town on the N end of Jazīreh-ye Hormoz, the island is mostly hilly with a very rugged outline marked in a variety of colours; at its centre stand a few white peaks resembling snow clad hills, the highest rises to 184 m and has a very sharply defined summit with a long slope E. The hills, with the exception of the white peaks and a range in the S and E parts of the island, are chiefly of rock salt with a thin layer of various coloured earths. On the E coast stand a few rocky hillocks; the S and W are cliffy. At night from SE, Jazīreh-ye Lārak and Jazīreh-ye Hormoz are very similar in appearance.

2 **Berths.** A small harbour lies close SW of the town and is entered from N between protective breakwaters; the harbour is used by lighters working the anchorage (5.11); a jetty near the fort dries at low water.

Lārak

5.14

1 **Description.** The fishing village of Lārak (26°53′N 56°23′E) and an old fort are both situated at the N end of Jazīreh-ye Lārak among date palms; a pier, about 3 cables long, extends N, then NW, from the village. The island is covered in stunted vegetation and is generally barren; its highest peak is square, rising to 148 m; a conical peak, 136 m high, stands about 1 mile SW of the main peak and shows up best from SE and NW. Jazīreh-ye Lārak Light (5.8) is exhibited from this central high ground. Two table-topped hills stand close together on the E side of the island, they show up well from N or S, but are obscured against the background hills when viewed from E. At night from SE, Jazīreh-ye Lārak and Jazīreh-ye Hormoz are very similar in appearance.

2 **Anchorage** can be obtained between the N point of Jazīreh-ye Lārak and the village of Lārak, about 3 cables from the edge of the drying bank, in depths of more than 20 m; the anchorage provides shelter from the *shamāl,* but is not recommended.

BANDAR-E SHAHĪD BĀHONAR

General information

Charts 3173, 3599

Position

5.15

1 Bandar-e Shahīd Bāhonar (27°09′N 56°12′E) is situated on the S coast of Iran close SW of Bandar ‘Abbās.

Function

5.16

1 Bandar ‘Abbās, essentially a military town, forms the seat of the State Governor, but it is also commercially important; the port is a main base for the Iranian Navy and an Iranian Air Force base is situated E of the town.

Trade. Principal exports include chrome ore, red oxide, marble, dried fruit and nuts; imports include cotton goods, foodstuffs, fertilizers construction machinery and materials.

Topography

5.17

1 Bandar-e Shahīd Bāhonar, together with the town of Bandar ‘Abbās, stand on a bare and sandy plain which rises gradually to hills, about 30 m high, standing between 1 and 2 miles inland; N of these hills the country becomes broken reaching heights of more than 200 m; farther inland it is mountainous. Kūh-e Pūlādī (Khāneh Sorkh) (27°13′N 56°02′E) is a coastal range of mountains W of Bandar ‘Abbās which at its W end rises gradually to over 500 m from where it then trends NE. Kūh-e Gachīn (27°06′N 55°56′E) is a confused mass of irregular and precipitous peaks, rising to elevations of 428 m W of Bandar-e Shahīd Rajāī (5.50).

2 Āb-e Mūrgh, a usually dry stream, enters the sea through the town of Bandar ‘Abbās; fronting the town is a beach of firm drying sand on which the surf, at times, can be very heavy.

Approach and entry

5.18

1 The normal approach is from the N side of the Strait of Hormuz (2.4) passing NE of Jazīreh-ye Lārak (26°52′N 56°22′E) and Jazīreh-ye Qeshm (26°50′N 55°55′E), and SW of Jazīreh-ye Hormoz (27°04′N 56°28′E); see 5.8.

An approach may also be made passing between Jazīreh-ye Lārak and Jazīreh-ye Qeshm, but if using this route then Jazīreh-ye Qeshm should be given a berth of at least 2 miles, keeping well clear of the shallow coastal bank and shoals extending E from the E end of the island; it is also advisable to keep on the Jazīreh-ye Lārak side of the channel as currents off the shoals are irregular.

2 Hormozgan Steel Complex Marine Terminal (5.45), situated about 9 miles WSW of Bandar ‘Abbās, is approached through a buoyed channel from the Bandar-e Shahīd Bāhonar entry channel.

Traffic

5.19

1 In 2004 the ports of Bandar-e Shahīd Bāhonar, Bandar-e Shahīd Rajāī (5.50), and the Hormozgan Steel Complex Marine Terminal (5.45) were used by a total of 1427 vessels with a total dwt of 45 858 422 tonnes.

Port Authority

5.20

1 Ports and Shipping Organisation, 751 Enghelab Avenue, Tehran 15994, Iran.

Limiting conditions

Controlling depth

5.21

1 The entrance channel is dredged to 9 m (1977); silting can be expected within the port. Hormozgan approach channel and the area off the berth are dredged to 14 m (1994).

Deepest and longest berth

5.22

1 The main quay on the W side of the basin is more than 1 km long; alongside depths 10·5 m (1977).

Tidal levels

5.23

1 Mean spring range about 3·1 m; mean neap range about 1·4 m. See *Admiralty Tide Tables Volume 3.*

Abnormal levels

5.24

1 Prolonged periods of winds from N or NE can reduce sea levels by as much as 1 m.

Maximum size of vessel handled

5.25

1 Maximum length of 185 m on a maximum draught of 10 m.

Hormozgan Terminal can handle vessels up to 60 000 dwt.

Arrival information

Notice of ETA

5.26

1 See 5.2 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

5.27

1 The merchant vessel anchorage, centred about 5 miles SSE of the entrance to Bandar-e Shahīd Bāhonar, has good holding in mud and sand; a shoal, with a least depth of 9 m (reported 1973), lies in the middle part of the anchorage.

The naval anchorage is centred about 2¼ miles SSW of the entrance to Bandar-e Shahīd Bāhonar and provides good shelter from the prevailing SW winds.

2 **Prohibited anchorage.** An area of disused cables extends S from a position on the coast about 1 mile E of the Customs House to the E end of Jazīreh-ye Qeshm; see 5.12.

Pilotage

5.28

1 Pilotage is compulsory and available day or night; pilot boards about 1 mile S of the harbour entrance, but due to the presence of unlit and unmanned vessels within the anchorage and port approaches it is recommended that the pilot be embarked in the outer approaches to the port.

See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

5.29

1 Tugs are available.

Restricted area

5.30

1 A hovercraft approach and operating area, in which anchoring, fishing, diving and swimming are all prohibited, lies W of the port and N of the Hormozgan Steel Complex Marine Terminal approach channel.

Harbour

General layout

5.31

1 The port of Bandar-e Shahīd Bāhonar is situated N of Eskeleh-ye Bandar ‘Abbās the outer harbour which is

entered from S between breakwaters; an inner entrance, between mole heads about 1 cable apart, leads into a turning basin; the Commercial Basin extends N from the turning basin and the Naval Basin E.

Custom House Pier extends about 250 m SSE from the middle part of the town of Bandar ‘Abbās near the Custom’s House; the masonry section of the pier dries, but lighters can lie alongside for about 3 hours each side of HW.

2 Hormozgan Steel Complex Marine Terminal (5.45) trestle jetty extends 1 mile SE from the shore E of Kamāl Gahromī.

Hazard

5.32

1 Fish traps are laid within Eskeleh-ye Bandar ‘Abbās.

Rat guards

5.33

1 The use of rat-guards is recommended when berthed alongside.

Natural conditions

5.34

1 **Tidal streams.** In the vicinity of the merchant vessel anchorage the out-going stream sets ESE and commences at around 2 hours after local HW; the in-going sets WNW commencing similarly about 2 hours after local LW; at springs both streams attain rates of between 2 and 3 kn. Off the entrance to Bandar-e Shahīd Bāhonar the out-going stream sets E and in-going W, with rates of up to 3 kn, even at HW the rate can exceed 2 kn; within the breakwaters there is no stream. Off Custom House Pier the streams set E with the out-going stream and W with the in-going, neither exceeding 1 kn.

2 **Local weather.** The climate from October to April is extremely pleasant, the mountains N are covered with snow and the air is dry, clear and bracing. In summer the mountains reflect heat on to the plain below, the climate then becomes damp and hot, but the fairly regular land and sea breezes do much to mitigate the heat. Temperatures seldom fall below 10°C in winter or rise above 40°C in summer.

Climatic table. See 1.145 and 1.151.

Principal marks

5.35

1 **Landmarks:**

A conspicuous white hotel (27°10′·2N 56°15′·3E) stands near the shore in the SW part of Bandar ‘Abbās; a pier, about 1½ cables long, extends SSE from the shore close SSE.

Two camouflaged radomes (27°10′·3N 56°11′·8E), on grey cylindrical towers, stand on a hill NNW of the port amongst a collection of other structures and storage tanks.

2 A conspicuous water tower (27°09′·0N 56°12′·7E) stands on the E side of the port, N of the Naval Basin; a further water tower stands 5 cables WNW close to the NW corner of the Commercial Basin.

Three conspicuous cranes (position approximate) (27°08′·8N 56°12′·6E) stand on the central quay between the two dry docks on the N side of Naval Basin.

3 Four conspicuous chimneys (red and white bands) (27°08′·9N 56°07′·0E) stand close SE of the nuclear power station near the shore between Bandar-e Shahīd Bāhonar and Bandar-e Shahīd Rajāī (5.50); a radar tower, 83 m high, stands about 3½ cables SW.

Major light:

Hormozgan Steel Complex Marine Terminal Directional Light-beacon (green 270·3°–271·3° (1°), white 271·3°–272·7° (1·4°), red 272·7°–273·7° (1°)) (27°07′·3N 56°05′·5E) is exhibited from a position on the shore W of the terminal.

Other aid to navigation

5.36

1 **Racon:**

Hormozgan Steel Complex Marine Terminal Directional Light-beacon (27°07′·3N 56°05′·5E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 5.8)

Approach

5.37

1 From the vicinity of the light-buoy (safe water) (27°04′·5N 56°19′·2E), moored close E of the merchant vessel anchorage (5.27), the track initially leads 4 miles NW then 3 miles W to the pilot boarding position S of the harbour entrance, passing (with reference to E breakwater head light (27°07′·8N 56°12′·3E)):

SW of a light-buoy (starboard hand) (4¼ miles ESE), thence:

SW of a stranded wreck (position approximate) (4 miles ESE), thence:

NE of a light-buoy (port hand) (2¾ miles SE), thence:

2 S of a shoal (sounding doubtful) (2¼ miles ESE), with a least depth of 8·3 m, thence:

S of a light-buoy (S cardinal) (1½ miles ENE) moored SE of Sūrū Spit, thence.

N of a light-buoy (isolated danger) (1¾ miles S), moored over a shoal area with depths of less than 10 m, and through to the pilot boarding position.

Entry

5.38

1 **Leading line:**

Front light-beacon (red, white and blue metal framework tower, red triangle apex up, 10 m in height) (27°09′·4N 56°12′·2E).

Rear light-beacon (red, white and blue metal framework tower, red triangle apex up, 15 m in height) (500 m N).

It has been reported that these structures are difficult to identify until within about 5 cables of the harbour entrance; the correct positioning for the approach can, however, be determined by observing the line of the quay and the jetties within Commercial Basin.

2 From the vicinity of the pilot boarding position the track leads N on the alignment (000°) of the leading light-beacons, which must be strictly adhered to as the channel through Eskeleh-ye Bandar ‘Abbās is narrow, passing E of the light-buoy (safe water) (27°07′·2N 56°11′·5E) moored at the outer end of Hormozgan Steel Complex Marine Terminal entry channel (5.45).

Lights (lateral) (framework towers) are exhibited from the heads of the E and W breakwaters of the entrance to Eskeleh-ye Bandar ‘Abbās; lights (lateral) (grey metal structures) are exhibited from the heads of the E and W moles of the entrance to the inner harbour.

5.39

1 **Hormozgan Steel Complex Marine Terminal**. From the vicinity of the light-buoy (safe water) (27°07′·2N 56°11′·5E), WNW of the pilot boarding position, the white sector (271·3°–272·7°) of the directional light-beacon leads about 3¾ miles W to the terminal jetty through a channel marked by light-buoys (lateral).

Basins and berths

General information

5.40

1 Commercial Basin extends 6 cables N from the turning basin; its central and W part are dredged to 10·5 m (1977). The Naval Basin extends E from the turning basin and is mostly dredged to 8 m (1977).

Outer harbour

5.41

1 A pier, with dolphins N and S, extends W from the E side of Eskeleh-ye Bandar ‘Abbās between the E breakwater head and the E inner mole head.

Turning basin

5.42

1 A turning basin is situated immediately within the inner mole heads; a berth, for use by vessels up to 14 000 dwt, lies along its W side.

Commercial Basin

5.43

1 Bandar-e Shahīd Bāhonar Commercial Basin forms the old port of Bandar ‘Abbās with six berths along its W side; its E side consists of a gravel bank with six T-headed jetties, the outer is used as an oil bunker berth; a chrome ore loading facility is immediately N.

Naval Basin

5.44

1 Commercial Berth 7 is the first berth on the N side of Naval Basin; two dry docks, various piers and fitting out berths for naval use lie in its NE part; a quay extends along its SE side.

Hormozgan Steel Complex Marine Terminal

5.45

1 The terminal, which handles both bulk steel products and crude oil, consists of a long trestle jetty with a berthing dolphin at its head; light-buoys (cardinal) are moored off the berth. The main terminal berth is 312 m in length and can accommodate two vessels.

Port services

Repairs

5.46

1 Major and minor repairs can be undertaken; dry docks in Naval Basin.

Other facilities

5.47

1 Mobile cranes; floating crane (sheer-legs); general hospital and a small hospital in port area; deratting exemption certificates issued.

Supplies

5.48

1 Fuel and diesel oil available at all cargo berths and at berths within Naval Basin; fresh water available at all berths (one vessel supplied at a time), water barge for vessels at anchor; provisions.

Communications

5.49

1 International airport 15 km.

BANDAR-E SHAHĪD RAJĀĪ

General information

Chart 3599

Position

5.50

1 Bandar-e Shahīd Rajāī (27°06′N 56°04′E) is situated on the S coast of Iran, 12 miles WSW of Bandar ‘Abbās (5.16).

Function

5.51

1 The new port of Bandar-e Shahīd Rajāī has replaced the older port of Bandar-e Shahīd Bāhonar as the main port for Bandar ‘Abbās.

Topography

5.52

1 See 5.17.

Approach

5.53

1 The approach passes S of Bandar-e Shahīd Bāhonar; see 5.18.

Traffic

5.54

1 See 5.19.

Port Authority

5.55

1 Ports and Shipping Organisation, 751 Enghelab Avenue, Tehran 15994, Iran.

Limiting conditions

Controlling depth

5.56

1 The main basin is maintained at 12·7 m.

Deepest and longest berth

5.57

1 The container terminal quay on the E side of Basin No 1 is more than 900 m in length with alongside depths of 14 m.

Tidal levels

5.58

1 Mean spring range about 3·1 m; mean neap range about 1·4 m. See *Admiralty Tide Tables Vol 3.*

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Abnormal levels

5.59

1 See 5.24.

Maximum size of vessel handled

5.60

1 Maximum length of 245 m on a maximum draught of 12·5 m.

Arrival information

Notice of ETA

5.61

1 See 5.26.

Outer anchorages

5.62

1 See 5.27.

Pilotage

5.63

1 Pilotage is compulsory and available day or night; the pilot boards within the merchant vessel anchorage (5.27); a smaller vessel pilot boarding position lies close E of the light-buoy (safe water) (27°04′·3N 56°09′·2E) moored E of the outer end of the entrance channel.

See *Admiralty List of Radio Signals Volume 6 (3)*.

Tugs

5.64

1 Tugs are available.

Harbour

General layout

5.65

1 Bandar-e Shahīd Rajāī is a large artificial harbour entered from E between outer breakwater heads and inner spurs. Basins 1 to 3 extend NNW from the main basin; a petroleum pier and a bunkering terminal are situated on its E side; mooring buoys are laid in its S part.

Development

5.66

1 It is intended that the port will eventually have three basins extending NNW from the main basin giving as many as fifty alongside berths. A coastal and fishing vessel harbour (27°06′N 56°05′E), entered from S between protective breakwaters, is under construction close ENE of Bandar-e Shahīd Rajāī.

Hazard

5.67

1 A suction chamber, connected to the shore by submarine pipelines, lies ESE of the entrance to the Coastal and Fishing Vessel Harbour (5.65); the chamber and its associated pipelines considerably reduce the charted depth. Vessels should navigate with caution in the area and not anchor in its vicinity.

Natural conditions

5.68

1 See 5.34.

Principal marks

5.69

1 See 5.35.

Directions for entering harbour

(continued from 5.8)

Approach

5.70

1 From the vicinity of the main pilot boarding position the track leads WNW for 5 miles to the vicinity of the small vessel pilot boarding position, close E of the light-buoy (safe water) (27°04′·3N 56°09′·2E).

Entry

5.71

1 From the vicinity of light-buoy (safe water) (27°04′·3N 56°09′·2E) the track leads 1 mile W to the outer end of the buoyed channel.

Leading line:

Front light-beacon (27°05′·7N 56°02′·4E).

Rear light-beacon (1·15 miles WNW).

The alignment (284°) of the light-beacons leads 3½ miles WNW through a channel marked by light-buoys (lateral); lights (lateral) (framework towers) are exhibited from the heads of the breakwaters; similar lights are exhibited from the inner spurs.

Berths

5.72

1 Only Basin 1, with the port's container and Ro-Ro facilities, and the NE side of Basin 2 are operational (2003). Basin 1 has fourteen alongside berths, on its NE side with alongside depths of 14 m and on its SW side 11·5 m; Berth 9 at its head, 5·5 m. Basin 2 on has six berths with a alongside depths of 11·5 m; four outer berths lie along the quay between the basins.

Petroleum Pier extends WSW from the inner part of Western Breakwater; it has berths on each side with mooring dolphins ENE and WSW and alongside depths of 14·0 m; it can handle vessels up to 70 000 dwt. A bunker terminal, with alongside depths of 9·7 m, lies close N.

Bostānū Shipyard

5.73

1 Bostānū Shipyard (27°03′N 55°58′E) is a new shipyard, situated within a protected basin, under construction WSW of Bandar-e Shahīd Rajāī (5.50); the yard is approached through the E part of Khūrān Strait (5.78).

Port services

Repairs

5.74

1 A slipway 1500 dwt capacity and floating dock.

Other facilities

5.75

1 General hospital in Bandar ‘Abbās.

Supplies

5.76

1 Fuel oil available.

Communications

5.77

1 See 5.49.

KHŪRĀN STRAIT

GENERAL INFORMATION

Chart 2888

Area covered

5.78

1 This section describes Khūrān Strait (Clarence Strait) (27°00′N 56°00′E) which separates Jazīreh-ye Qeshm (5.80) from the Iranian mainland.

It is arranged as follows:

Khūrān Strait – Eastern Part (5.83).
Khūrān Strait – Western Part (5.94)

Description

5.79

1 The width of the strait varies from about 8 miles at its E end to 1¼ miles at its narrowest S of Ra’s-e Pahel (26°58′N 55°45′E) (5.88); in its E part it is navigable by vessels of moderate size as far as the narrows; vessels of shallow draught can make a complete passage taking between 8 and 9 hours.

Topography

5.80

1 Jazīreh-ye Qeshm (26°50′N 55°55′E) forms the SSE side of Khūrān Strait and is about 60 miles in length, making it the largest island within Persian Gulf; the interior rises to light-coloured, table-topped hills with precipitous and broken down sides, some of remarkable appearance. There are a few towns and numerous villages.

Local knowledge

5.81

1 The route through Khūrān Strait is intricate, especially in its W part; tidal streams are strong. Passage should not be attempted without local knowledge or the services of a pilot.

Tidal streams

5.82

1 Tidal streams are strong throughout the strait, in the anchorage off Ra’s-e Laft (5.92) the in-going stream sets W at rates of up to 2 kn at springs; strong eddies and overfalls may be experienced off the shoals in this area.

KHŪRĀN STRAIT – EASTERN PART

General information

Charts 3599, 3173, 2888

Route

5.83

1 From a position at the E end of the Khūrān Strait, NNE of Ra’s Miln (27°00′N 56°09′E), the route initially leads WSW for 19 miles to a position WSW of Middle Banks; it continues another 7 miles WNW to the narrows S of Ra’s-e Pahel (26°58′N 55°45′E).

Topography

5.84

1 A great chain of mountains on the mainland extends NE as far as Posht Kūh (27°37′N 56°40′E); Kūh-e Pūlādī (5.17) stands in the W part, between this great chain and the coast, rising gradually from W to an elevation of 503 m from where it then trends NE. Kūh-e Gachīn (27°06′N 55°56′E) (5.17) stands close SW of Kūh-e Pūlādī.

Depths

5.85

1 The coastal bank between Bandar-e Shahīd Rajāī (27°06′N 56°04′E) and Rā’s-e Bostānū, 7 miles SW, dries up to 8 cables from the shore, the bank is composed of dead coral covered with sand and mud; off the village of Bostānū it is steep-to.

From Rā’s-e Bostānū to Ra’s-e Pahel (26°58′N 55°45′E) the shore is low, covering at spring tides such that the HW line is not easily defined. A drying flat fronts the shore and is of considerable extent; S of the flat is shoal water extending to within a short distance of Middle Banks. Between this shoal water and Middle Banks lies a narrow channel, but it is intricate and passage should not be attempted.

Hazards

5.86

1 **Fishing.** Fish traps are laid on the drying bank off the NW part of Jazīreh-ye Qeshm, between Ra’s Miln (27°00′N 56°09′E) and Bandar-e Biscoe (5.88), 15 miles WSW. The principal fishing ground within the strait lies the vicinity of a small detached shoal area (26°59′N 56°01′E), with a least depth of 6·9 m, about 2½ miles NE of Ra’s-e Koveh (5.88).

Tidal streams. The out-going stream in the vicinity of Middle Banks (5.88) is reported to set strongly towards the banks and care must be taken to avoid being set on to them.

Principal marks

5.87

1 **Landmarks:**

Jabal Horton (26°58′N 56°06′E), which stands about 4 miles WSW of Ra’s Miln (5.88), is a remarkable wedge-shaped hill with a bluff on its S side.

Finger Peak (26°50′N 55°56′E) (Chart 2888) stands at the S end of a range of hills on Jazīreh-ye Qeshm (5.80) which trend N to within 1½ miles of the coast from where it then extends W for about 6 miles forming a coastal range of low irregular hills with no prominent summit.

2 Jabal Biscoe (26°49′N 55°54′E), the highest point of the NE part of Jazīreh-ye Qeshm, stands behind the coastal hills 8 miles W of Sugar Loaf Hill. It has a peaked summit which, when viewed from the S, is conspicuous.

Sugar Loaf Hill (26°54′N 55°50′E) stands near the W end of a coastal range of irregular hills on the N part of Jazīreh-ye Qeshm, it forms the only prominent summit in the range.

Directions

(continued from 5.8)

Ra’s Miln to Ra’s-e Koveh

5.88

1 From a position NNE of Ra’s Miln (27°00′N 56°09′E), in the SW part of the merchant vessel anchorage (5.27), the track leads WSW for 11½ miles, passing:

SSE of a light-buoy (safe water) (27°04′·3N 56°09′·2E) moored in the outer approaches to Bandar-e Shahīd Rajāī (5.50), thence

Clear of No 15 Light-buoy (safe water) (27°02′·7N 56°09′·5E), moored about 2¾ miles N of Ra’s Miln a bold promontory projecting on to the mudbanks off the N shore Jazīreh-ye Qeshm; a peaked precipitous hill, 121 m high, stands about 1 mile

SSE of the point; a shoal (sounding doubtful) (27°03′·0N 56°07′·4E), with a least depth of 9·5 m, lies NNW of track. Thence:

2 The track continues WSW through a buoyed channel, passing:

SSE of Bostānū East Bank (27°04′N 56°04′E), over which there is a least depth of 1 m, but is sometimes awash. The bank, together with Bostānū West Bank, forms one continuous bank parallel to, and about 2½ miles from, the N shore of the strait; the S side of these banks is moderately steep-to. Thence:

3 SSE of Bostānū West Bank (27°01′N 56°00′E), a drying bank; a shoal (26°59′N 56°01′E), with a least depth of 6·9 m, lies near the centre of the fairway close SE of track. Thence:

SSE of Rā's-e Bostānū (27°02′N 55°57′E), a low and not easily identified point; on its E extremity stands a 6 m high hillock. Thence:

4 NNW of Ra's-e Koveh (26°57′N 55°59′E), a steep-to well defined point with an 80 m high hillock close SE; the land SE of the point rises to a plateau over 160 m high. Koveh Jetty extends into the strait from near the point; see 5.90.

Ra's-e Koveh to Ra's-e Laft

5.89

1 The track continues 13 miles, generally W, passing:

SSE of Middle Banks (26°57′N 55°54′E), which is composed of two shoal areas about 1½ miles apart; the E part has a least depth over it of 2·2 m, and the W dries over a considerable area and is steep-to on its SW side. And:

NNW of Ra's-e Zeynabī (26°56′·3N 55°57′·8E), the NE end of a plateau; a tableland extends about 3 miles WSW, parallel to the coast, and about 1¾ miles inland. Thence:

2 N of Bandar-e Biscoe (26°55′N 55°53′E), a bight W of Ra's-e Zeynabī bordered on its S side by a drying bank, thence:

S of a buoy (conical) (position approximate) (26°56′·5N 55°51′·5E) moored off the S side of the drying W part of Middle Banks, thence:

NNE of Fasht a' la Mulk (26°56′·5N 55°48′·2E), a drying rocky shoal at the W end of a shallow spit which extends SE, then ENE, parallel with and 5 cables off the shore, thence:

3 NNE and N of A' la Shoal (26°57′·6N 55°46′·4E), a rocky patch, with a least depth of 5·9 m, thence:

S of Pahel Patch (26°58′·2N 55°45′·3E), a rocky shoal with a least depth of 6·7 m, thence:

N of Lāft Qadim (26°57′·2N 55°45′·3E) (not charted) a small rocky point between A'la Shoal and Ra's-e Laft (5.92); a black wooden pier extends N from close E of the point; a mosque and a water tank stand nearby and are fairly conspicuous. The village of Lāf Kohneh is situated close S of the point. Thence:

4 S of Ra's-e Pahel (26°58′·4N 55°44′·7E) on which there are some ruined water tanks; a conspicuous grey building stands 2½ cables NE of the point. Rūd-e Kol enters the strait over a drying bank E of Ra's-e Pahel; the river, which is extremely saline, is navigable by local craft. Thence:

Clear of the central support (26°57′·8N 55°44′·8E) of a power cable which spans the narrows, thence:

N of Ked Shoal (26°57′·5N 55°44′·3E), a rocky and sandy shoal, with a least depth of 4·6 m, thence:

5 NW of Ra's-e Laft (26°56′·5N 55°43′·7E) (5.92) and through into the W part of Khūrān Strait.

(Directions for the W approach to Khūrān Strait are given at 5.100 and from the W end of the inner channel N of The Flat at 5.102)

Koveh Jetty

General information

5.90

1 **Description.** A jetty extends N for 300 m, then a similar distance NE, from Ra's-e Koveh (26°57′N 55°59′E) (5.88).

Approach. From the vicinity of No 15 Light-buoy (safe water) (27°02′·7N 56°09′·5E) moored N of Ra's Miln, a channel, 500 m wide and marked by light-buoys (lateral), leads 9 miles WSW, in a least depth of 10·7 m, passing SSE of Bostānū East and West Banks to the approach channel which then leads SSW to the jetty.

Anchorages and harbours

Bostānū

5.91

1 A well sheltered anchorage in good holding ground may be obtained between the village of Bostānū (27°05′N 56°00′E) and Bostānū East Bank (5.88), 3¾ miles ESE, in depths over 10 m.

Ra's-e Laft

5.92

1 A well protected anchorage may be obtained in the W part of the narrow section of Khūrān Strait, NW of Ra's-e Laft (26°56′·5N 55°43′·7E), in depths of more than 5 m over a sand and rock bottom; depths WNW of the point are irregular with a depth of 1·4 m at its outer end, about 8 cables WNW of the point. Local knowledge is required.

Prohibited anchorage. A submarine gas pipeline crosses the narrows from Ra's-e Pahel (26°58′N 55°45′E) to a position on Jazīreh-ye Qeshm, close E of Ra's-e Laft.

Dargāhān

5.93

1 **Description.** Dargāhān (26°58′N 56°04′E) is a small village in the NE part of Jazīreh-ye Qeshm set among some date palms; a minaret, 23 m in height, stands near its centre. A sea-wall fronts the E side of the village, from its W end a jetty, 3 cables long, extends N to the edge of the drying bank; a shoal, with a least depth of 2·1 m, lies close off the N extremity of the jetty. See 5.86.

KHŪRĀN STRAIT – WESTERN PART

General information

Chart 2888

Description

5.94

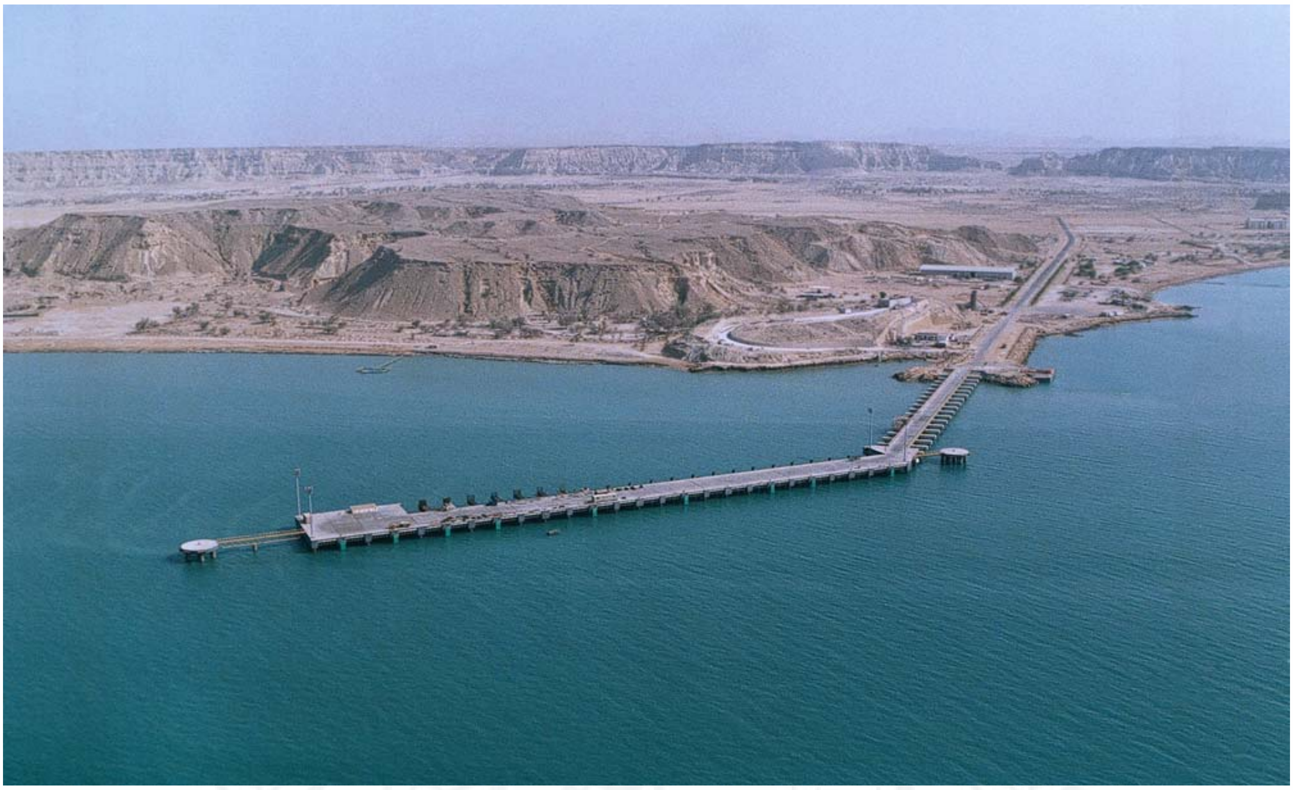
1 The W part of Khūrān Strait, SW of the narrows, is divided by a large complex of low islands composed of areas of salt-marsh and mangroves.

Topography

5.95

1 Kūh-e Pahel-e Khamīr (27°04′N 55°40′E) is a pointed summit near the E end of Kūh-e Babeyān, a mountain range which extends nearly 50 miles W; a peak, 1470 m high, stands 13 miles W in the same range and has a spur

Qesham Island



Koveh Jetty (5.90)

(Original dated 2003)

(Photograph – Ports & Shipping Org. of Islamic Rep. Iran)

extending SE, but it is not prominent. Between Kūh-e Babeyān, and the range SW, lies a wide valley in which the Rūd-e Mehrān flows entering the W part of Khūrān Strait through a large delta. A peak, 2680 m high, (27°26′N 55°07′E) (Chart 2837) is visible over the mountains which rise S of it; from S it's summit, covered with snow in winter, appears as three small peaks.

2 On the NW side of the W entrance to the Khūrān Strait, W of the village Bandar-e Mo'allem (26°39′N 55°03′E), the land rises to form a long, light-coloured ridge over 300 m high with a very jagged outline; the ridge is fairly prominent from ESE. Qál'eh Lashtūn (26°37′N 54°52′E), a detached hill, 126 m high, stands about 10 miles W of Ra's osh Shāvarī (5.112), it has a sloping summit and precipitous sides and appears wedge-shaped, and is visible over the hills standing between it and the coast.

Depths

5.96

1 The Iranian coast from the W end of Khowr-e Ja'farī (26°43′N 55°28′E) to SW of Kong (5.112), 30 miles WSW, is fringed by a shallow coastal bank which, in places, is steep-to. A least charted depth of 5·5 m lies in the central part of the W section at the junction of Khowr-e Masakeh (5.104) with Khowr-e Ja'farī (5.103).

Local knowledge

5.97

1 The W part of Khūrān Strait and the channels through to the narrows have not been fully surveyed and are not buoyed; passage should only be attempted with local knowledge during daylight with at least moderate or good visibility and keeping a close watch on soundings. It has been reported that Khowr-e Masakeh (5.104) has now silted up and can only be used with local knowledge.

Tidal streams

5.98

1 In the W part of the strait the streams can attain rates of up to 3 kn at spring tides.

Western approaches to Khūrān Strait

Charts 2441, 2888

General information

5.99

1 **Route.** From a position SW of Mariner Shoal (26°23′N 55°12′E) the route leads N then NE for 26 miles to the anchorage off Bāsa 'īdū (26°39′N 55°17′E).

Depths. When W of the NW part of The Flat (5.126) depths are greater than 5 m, but a shoal (26°35′·9N 55°10′·7E), with a least depth of 4·5 m, lies close SE of track.

Landmark:

Grubb's Notch (26°50′N 55°00′E), a saddle shaped summit standing about 4½ miles E of Kūh-e Kampīr.

Directions

5.100

1 From a position SW of Mariner Shoal (26°23′N 55°12′E) the track initially leads N, passing (with reference to Ra's-e Dastakān Light (26°32′·6N 55°17·1E)):

W of Mariner Shoal (11 miles SSW) (2.15) lying close off the S side of The Flat. Grubb's Notch (5.99), bearing 349° ahead, leads 4 miles W of Mariner Shoal; however, normal visibility experienced during the summer months makes it doubtful if this mark could be identified. Thence:

2 W of Ra’s-e Dastakān Light (white beacon) (6¾ miles S) exhibited from a position 6 cables NW of Ra’s-e Dastakān (5.131); and W of the W side of The Flat. Thence:

NW of the NW end of The Flat (7 miles WNW), and SE of the S end of North Bank (8 miles WNW). Kūh-e Pahel-e Khamīr (5.95), bearing about 044° ahead, leads between The Flat and North Bank; however, normal visibility experienced during summer again makes it doubtful that the peak could be of any use at this time. Thence:

3 NW of Beacon Shoal (5 miles NW) a mostly sandy shoal with a drying patch at its N end, thence:

SE of North Bank (8 miles NW) a SW extension of the coastal bank which stretches along the NW side of the strait (5.96); there is a least depth over the NE part of its S end of 3 m. Thence:

NW of a shoal (6½ miles NNW) with a least depth of 0·9 m; a beacon (white cross topmark) stands on a rocky area close NE. Thence:

4 NW of Ra’s-e Bāsa ’Īdū (6¾ miles N) (not charted), the NW extremity of Jazīreh-ye Qeshm (5.80), a level cliff, 6 m high, on the summit of which there are a few small buildings and some date palms; a light is exhibited from near the point. Thence:

Through to the anchorage.

Inshore approach to Khūrān Strait from the western end of the inner channel

General information

5.101

1 **Route.** From a position S of Ra’s-e Dastakān (26°32′N 55°18′E) the route leads NW then NE for 12 miles to the anchorage off Bāsa ’Īdū (26°39′N 55°17′E).

Topography. The W end of Jazīreh-ye Qeshm is low near the coast, except in the vicinity of the Hummocks (26°35′N 55°19′E) (5.129) where it rises to some broken rocky hills; near the S end of the island is an overhanging cliff which resembles a shark’s mouth. A extensive flat of mud and sand fronts the major part of this coast.

Caution. See 5.111.

Directions

5.102

1 From a position S of Ra’s-e Dastakān (26°32′N 55°18′E) the track leads NW, passing (with reference to Bāsa ’Īdū Light (26°39′·3N 55°15′·8E)):

SW of Ra’s-e Dastakān Light (6¾ miles S) (5.100), thence:

NE of the central area of The Flat (9 miles SSW) (5.126) over which there are depths of less than 5 m, thence:

2 W of Beacon Shoal (4 miles WSW) (5.100), thence:

SE of North Bank (4½ miles W) (5.100), thence:

NW of the shoal (2 miles WSW) (5.100), with a least depth of 0·9 m, thence:

Through to the anchorage.

3 **Side channel.** The narrow channel, which leads between Beacon Shoal and the shallow sandspit extending SSE from its W side, and the mud and sand flat off the W end of Jazīreh-ye Qeshm, is not navigable.

Channels in the western part of the Khūrān Strait

Khowr-e Ja’farī

5.103

1 **Description.** Khowr-e Ja’farī, the W channel of Khūrān Strait, extends from Ra’s-e Bāsa ’Īdū (26°39′N 55°15′E) to its common junction with Khowr-e Gūrān (5.105) and Khowr-e Masakeh (5.104), 17 miles ENE.

The area on the N side of the channel is, for the most part, formed by the low and marshy ground of the delta of the Rūd-e Mehrān (5.95). A rounded summit, 888 m high, (26°49′N 55°14′E) stands about 2 miles inland at the E end of the coastal mountain range on the S side of Rūd-e Mehrān. Some ruined reservoirs stand on a low point 5 miles SSW of the rounded summit; the coast W of the point is low, but the land rises to a, 473 m high, hill (26°45′N 55°06′E) of irregular outline. The E part of this area appears light in colour, but its W part is dark and apparently of volcanic formation.

2 The S side of the channel is fringed by a drying mud-flat; Gūrmī, a large village 5 miles E of Ra’s-e Bāsa ’Īdū, has extensive groves of date palms and areas of cultivation. From about 2 miles E of Ra’s-e Bāsa ’Īdū to Gūrmī the coast is low and barren with occasional large plantations of date palms and a few houses.

3 **Directions.** From the anchorage, the navigable channel leads N of the area of middle ground which lies N of Gūrmī and over which are least depths of 2·7 m; the track continues between about 1¼ miles and 7 cables off the S shore as far as the beacon (position approximate) (26°43′·9N 55°34′·3E) standing on the S side of the common junction of Khowr-e Ja’farī with Khowr-e Gūrān (5.105) and Khowr-e Masakeh (5.104).

Khowr-e Masakeh

5.104

1 **Description.** Khowr-e Masakeh (26°50′N 55°37′E) leads W of the large complex of islands dividing the E part of the W section of Khūrān Strait into two channels. The channel leads NNE for about 14 miles from its common junction with Khowr-e Gūrān (5.105) and Khowr-e Ja’farī (5.103) to Low Point, the N extremity of an unnamed island about 1½ miles WSW of Ra’s-e Laft; banks on each side of the channel are mostly steep-to, but being covered with muddy water they are not visible.

2 Khamīr (26°57′·0N 55°35′·2E) is a town built around a fort with a high square tower; the W shore of the channel, S of the town, is part of the delta of the Rūd-e Mehrān (5.95) and comprises of low and swampy marsh land covered with mangroves. See 5.97.

Khowr-e Gūrān

5.105

1 **Description.** Khowr-e Gūrān (26°48′N 55°42′E) is a tortuous channel, but is the preferred route; its banks, except in its S entrance, are well defined by mangroves. A rock awash lies on the W side of its N entrance at the outer end of the shallow spit extending NNE from Low Point (26°56′·2N 55°42′·2E). The navigable channel in the N entrance is only about a cable wide; throughout the rest of its length the channel width varies from about 3 cables in its N part to around 2 cables in its S where sharp turns are encountered. Depths in the fairway are reported to be not less than 7·3 m.

2 At its S end the channel is more difficult to navigate, it is narrow and sometimes encumbered by several large local craft moored off the village of Bandar-e Gūrān (26°44′N

55°37′E); this section is best navigated when the tide is low enough to identify the edges of the flats.

Hazard. Fishing stakes, hardly visible at HW, encumber the greater part of the channel NW of Bandar-e Gūrān.

3 **Directions.** It was reported (1970) necessary to pass close W of the islet of Jazīreh Hinderābi (26°55′·5N 55°43′·6E), giving Low Point as wide a berth as possible. The deepest water within the channel is normally to be found on its E or S sides, and on the outside of bends, with the exception of the gentle bend 2½ miles NE of Bandar-e Gūrān where the deepest water lies on its SE side.

Anchorage has been obtained in a depth of 14·6 m, sand, about 3 cables SW of Jazīreh Hinderābi; anchorage has also been obtained in a depth of 12·8 m, mud, close W of Bandar-e Gūrān.

Bandar-e Lengeh

Charts 2441, 2888, 3409 plan Bandar-e Lengeh

General information

5.106

1 **Position.** Bandar-e Lengeh (26°33′N 54°53′E) is a small town on the W side of the W entrance to Khūrān Strait (5.78); it is the seat of the Deputy Governor of Gulf ports, but trade has much declined in recent years.

Topography. The town behind the harbour stands on a narrow strip of foreshore and shows up well from seaward especially in the forenoon; the small village of Bandar-e Gasheh, with two towers, is situated 2 miles SW near some date palms.

Approach. The port is approached from the NW part of the Strait of Hormuz passing SE of Ra’s-e Khārgū (5.113).

Limiting conditions

5.107

1 **Controlling depth.** A depth of 3·5 m lies in the entrance between the breakwater heads.

Tidal levels. Mean spring range about 1·7 m; mean neap range about 0·8 m. See *Admiralty Tide Tables Volume 3.*

Harbour

5.108

1 **General layout.** The harbour is entered from SSW through a, 135 m wide, entrance between breakwaters from which lights (lateral) are exhibited. An inner pier divides the harbour from near the middle of its NW side.

Tidal streams off Bandar-e Lengeh set SW with the in-going stream and NE with the out-going, at rates of between ¼ and ¾ kn; see Tidal streams 5.113.

2 **Landmarks:**

- A conspicuous minaret (25 m high) (26°32′·9N 54°52′·8E) shows up well against the light-coloured land, it is mainly constructed of yellow stone with its upper part of grey and green bricks covered by a dark green roof; it appears to incline.
- A prominent water tower (26°32′·8N 54°52′·4E) stands in the S part of the town, WSW of the minaret.
- 3 A radio mast (red obstruction lights) (26°33′·0N 54°53′·1E) stands close W of the root of inner harbour pier; another radio mast stands about 6 cables NNW.

Anchorages

5.109

1 Anchorage may be obtained E of the outer breakwater head in depths of between 7 m and 10 m, mud; anchorage has been obtained about 2 miles SSW of the outer breakwater head in depths of over 15 m. These anchorages are sheltered except from SW winds which can raise a heavy sea.

Port services

5.110

1 **Facilities:** Lighters.

Supplies: Fresh produce available.

Communications: Airport.

Anchorages

Bāsa ’Īdū

5.111

1 **Description.** Bāsa ’Īdū (26°39′N 55°17′E) is a ruined village on the N side of the SW part of Jazīreh-ye Qeshm (5.80), close SE of Ra’s-e Bāsa ’Īdū (not charted). The ruins of a once conspicuous building stand about 2½ cables S of the point; a monument stands 5 cables ENE. A dilapidated stone pier, the head of which is awash, extends NW from a position 1 cable NE of Ra’s-e Bāsa ’Īdū; close off the head of this pier lies a rocky patch which nearly dries.

Tidal streams in the anchorage attain a rate of about 3 kn at springs; the in-going stream W of Jazīreh-ye Qeshm sets both SW and W and the out-going between NW, N and NE; all converge on the anchorage.

Directions. See 5.102.

2 **Anchorage** may best be obtained 3 cables NW of the dilapidated stone pier, or farther NE on the SE side of the deep trench of water off the point, in depths between 9 and 13 m in a good holding ground of clay. The anchorage is sheltered by Beacon Shoal (5.100) from the *shamāl* which, in this vicinity, blows from SW. Care should be taken to avoid anchoring in the deeper parts of the trench. It is advisable to moor with anchors laid NE and SW as with a strong wind blowing in opposition to the stream a vessel at a single anchor rides very uneasily. The anchorage is not recommended for vessels with a draught of more than 6 m; vessels with a draught in excess of 5 m should not attempt to enter until there is sufficient height of tide.

Bandar-e Kong

5.112

1 **Description.** Bandar-e Kong (26°36′N 54°56′E) is a town with many fine houses and mosques situated on a sandy beach about 7 miles SW of Ra’s osh Shāvarī (26°39′N 55°03′E); two mosques with minarets stand within the town; a small harbour, protected by breakwaters, lies SE.

Approach. The anchorage is approached from SW; passing SE of Bandar-e Lengeh (5.106) and NW of a conspicuous stranded wreck, 4 miles E, marked by a light-buoy (isolated danger).

2 **Anchorage** may be obtained in depths of between 5 and 10 m about 4 cables SSE of the S breakwater head, mud; the anchorage is sheltered except from SW winds.

Landing at low water is bad as the sandy beach dries in ridges for about 2½ cables offshore; depths of between 0·3 and 0·6 m lie between the ridges.

Bandar-e Sheyās

5.113

1 **Description.** Bandar-e Sheyās is a bay entered between Ra’s-e Khārgū (26°31′N 54°51′E), a low and sandy point

with a rocky beach reported to be radar conspicuous, and Ra's osh Sheyās, 3 miles WSW, another very low and sandy point. The village of Bandar-e Sheyās lies at the head of the bay, but is obscured from seaward by a thick grove of date palms.

Tidal streams off Ra's-e Khārgū and Ra's osh Sheyās attain a rate of 1½ kn and cause a discolouration of the water. See Tidal streams 5.111.

2 **Anchorage** may be obtained within the bay in depths of between 9 and 13 m, the anchorage is sheltered from the *shamāl* and, due to a certain amount of protection from Jazīreh-ye Qeshm (5.80) and The Flat (5.126), the *nashī* which does not raise a heavy sea.

SOUTH SIDE OF JAZĪREH-YE QESHM

GENERAL INFORMATION

Chart 2888

Area covered

5.114

1 This section describes the S side of Jazīreh-ye Qeshm (26°50′N 55°55′E) from Qeshm (5.12) to Ra's-e Dastakān (26°32′N 55°18′E), the SW corner of the island.

It is arranged as follows:

Qeshm to Jazīreh-ye Hengām (5.115).
Jazīreh-ye Hengām to Ra's-e Dastakān (5.124).

QESHM TO JAZĪREH-YE HENGĀM

General information

Chart 3173, 3174

Route

5.115

1 From a position SW of Jazīreh-ye Hormoz (27°04′N 56°28′E) the route leads SW for 36 miles to a position SE of Jazīreh-ye Hengām (26°39′N 55°53′E).

Topography

5.116

1 At the NE end of Jazīreh-ye Qeshm (5.80) a low plain extends for several miles W from the hills behind Qeshm; farther W are some table-topped hills, precipitous on their seaward sides, decreasing in height towards Ra's-e Khārgū (26°41′N 55°55′E). The shores of the bight S and SW of Qeshm are low and sandy; farther SW, as far as Ra's-e Khārgū, the coast is a succession of rocky patches interspersed with small sandy beaches.

Local weather

5.117

1 This stretch of coast is open to the *shamāl* which in this area blows from SW to WSW.

Principal marks

5.118

1 **Landmarks:**

Sugar Loaf Hill (26°49′N 56°04′E) stands about 14 miles SW of Qeshm (5.12) between a long plateau and a remarkable white hill, 163 m high, which rises 2½ miles SW and has a small cone at its S end; both hills show up well from seaward.
Jabal Biscoe (26°49′N 55°54′E) (5.87).
Finger Peak (26°50′N 55°56′E) (Chart 2888) (5.87).

Other aids to navigation

5.119

1 **Racons:**

Jazīreh-ye Lārak (26°52′N 56°22′E).
Jazīreh-ye Hengām Light (26°38′N 55°54′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

5.120

1 From a position SW of Jazīreh-ye Hormoz the track leads SW, passing:

SE of a light-buoy (red pillar) (26° 57′·2N 56°18′·1E) moored on the edge of the coastal bank close E of Qeshm (5.12), thence:
NW of Jazīreh-ye Lārak (26°52′N 56°22′E) (5.14); a depth of 14 m (reported 1973) lies 4¾ miles NW of Jazīreh-ye Lārak Light, close S of the coastal bank off Jazīreh-ye Qeshm. Thence:
2 SE of a small harbour situated ESE of Rameh Chāh (26°55′N 56°08′E); lights (lateral, 7 m in height) (position approximate) are exhibited from its breakwater heads. Thence:
SE of the three islets (26°49′N 56°07′E) about 4 cables offshore; the middle and largest islet is 6 m high, the N islet is a flat ledge of rock 0·5 m high. Thence:
SE of the islet (8 m high) (26°48′N 56°06′E) which is flat with vertical sides; a depth of 24 m (reported 1973) lies about 1½ miles ESE of the islet. Thence:
3 SE of Sūzā (26°47′N 56°04′E), a small town; a ruined tomb stands near the shore E of the town. A dangerous rock (position doubtful), over which at LW in moderate weather the sea breaks, lies about 6½ cables S of the town. Thence:
NW of Patrick Stewart Bank (26°40′N 56°09′E), over which there is a least depth of 22 m, thence:
SE of Masen (26°45′N 56°00′E), a small village and date grove; a remarkable isolated crag (5.121) stands 2½ miles W of the village. Thence:
4 SE of Maundrell Shoal (26°40′N 55°57′E), with a least depth of 4·8 m, lying at the outer end of a ridge extending S from the coastal bank off Ra's-e Khārgū which forms the NE entrance point to Hengām Sound (5.121). An unsurveyed area lies SE of the point. Thence:
SE of White Point (26°40′N 55°55′E) the E point of Jazīreh-ye Hengām; a cairn (6 m in height) stands on the point. Thence:
SE of Jazīreh-ye Hengām (26°39′N 55°53′E); a light (square metal tower, concrete base, 4 m in height, visible 173°–014°) is exhibited from the SE side of the island.

(Directions continue at 5.131)

Hengām Sound

General information

5.121

1 **Description.** Hengām Sound (26°41′N 55°55′E) is a short passage leading from the N side of the Strait of

Hormuz to Kharlīj-e Deyrestān which separates Jazīreh-ye Hengām and Jazīreh-ye Qeshm.

Topography. Ra’s-e Khārgū, the NE entrance point, is low and rocky rising gently to an elevation of about 30 m; it terminates 1 mile inland in a cliff which then drops to a sandy plain from which rise several plateaux; a cairn (white, 5 m in height) stands close E of the point. The shore on the NE side of the passage is rocky for about 1½ miles NNW of the point, where it then becomes low and sandy.

2 The shores of Kharlīj-e Deyrestān (26°43′N 55°52′E) are low and sandy; conspicuous palms grow on the foreshore of the bay in the vicinity of the village of Tīāb-e Garmū; the small village of Deyrestān (26°45′N 55°56′E) is situated about 2½ miles E of its head. A long and prominent, 105 m high, wedge-shaped hill (26°46′N 55°49′E) stands 2½ miles inland of the NW shore; between it and the hills N of Deyrestān, lies an extensive swampy plain.

3 The island of Jazīreh-ye Hengām forms the S side of the passage and is rather dark in colour. Its barren hills, covered with coarse grass and brushwood, decrease in elevation from N to the comparatively low S end. The SE side of the passage is bordered by sandy beaches separated by rocky points; Ra’s-e Mashēh (26°41′N 55°53′E), a low sandy point, marked near its extremity by a beacon (white concrete block triangle topmark, 8 m in height), forms the N extremity of the island.

4 **Depths.** A least depth of 9 m lies in the central part of the outer end of the fairway and a depth of 7·8 m at its inner end. The coastal bank on each side of the passage is comparatively narrow and steep-to. Vessels with a draught of more than 6 m entering the passage should keep well S of Maundrell Shoal (26°40′N 55°57′E).

Tidal streams within the passage set NW with the in-going stream and SE with the out-going, attaining rates of up to 2¼ kn.

5 **Landmarks:**

A remarkable, 82 m high, isolated crag (26°44′·6N 55°57′·5E) stands 2½ miles W of the village of Masen (5.120) and shows up well from seaward.

Mitre Hill (26°39′·8N 55°53′·6E), which rises to a double peak in the NE part of Jazīreh-ye Hengām, has an irregular ridge extending 1 mile SE; on the NE side of the ridge is a rocky plateau descending in steep cliffs to a valley.

6 Table Hill (26°40′·2N 55°53′·0E), 104 m high, stands near the N end of Jazīreh-ye Hengām, the peak, though remarkable on some bearings, does not show up well when seen from S against the higher land of Jazīreh-ye Qeshm.

A radio tower (26°40′·8N 55°53′·5E), 62 m in height, stands among a group of secondary masts about 3½ cables S of Ra’s-e Mashēh.

Directions

5.122

1 It is recommended that Hengām Sound should be approached from SSE taking care to alter course NW to avoid the foul ground S of Ra’s-e Khārgū. Care should be taken to avoid a shoal, with a least depth of 4·1 m, on the N side of the fairway 1 mile NE of Ra’s-e Mashēh (26°41′·2N 55°53′·4E); a depth of 7·8 m lies 4 cables N of the point. Vessels should not attempt to pass between Maundrell Shoal and Ra’s-e Khārgū (26°41′N 55°55′E) when entering the passage.

Anchorage

5.123

1 Anchorage may be obtained either NE or NW of Ra’s-e Mashēh (26°41′·2N 55°53′·4E); the anchorage NE of the point, though sheltered, is not desirable on account of the hard bottom and the strong tidal streams and eddies experienced in this vicinity; the better berth, partially sheltered from the *shamāl*, which in this area blows from SW, is 3 cables off the beacon on Ra’s-e Mashēh bearing not less than 124°, but depths are irregular.

2 A recommended anchorage in hot weather is 2¾ cables off the beacon on Ra’s-e Mashēh, bearing 183°, any breeze present will be free of sand or dust, but this position is open to a strong *shamāl* and to any slight sea; the holding is good, but the berth cannot be recommended during winter months.

If intending to use the anchorages N of Ra’s-e Mashēh during a *shamāl* it is better to approach the passage from E rather than W.

3 **Landing** can be made at a 90 m long pier, with a least depth alongside of 0·6 m, which extends NE from a position close SE of Ra’s-e Mashēh; a large storehouse is situated at its root. Landing can also be made on the W side of the point where the beach is moderately steep.

JAZĪREH-YE HENGĀM TO RA’S-E DASTAKĀN

General information

Charts 2888, 3174, 2441

Route

5.124

1 From a position SE of Jazīreh-ye Hengām (26°39′N 55°53′E) the route leads W for 35 miles to a position about 8 cables S of Ra’s-e Dastakān (26°32′N 55°18′E).

Topography

5.125

1 Between Ra’s-e Şalakh (26°41′N 55°45′E) and Ra’s-e Tarkūn, 7 miles WSW, the coast is low and sandy, but the interior rises gradually to N-facing cliffs which then descend to a plain; beyond the plain hills rise with broken and precipitous sides. About 2 miles N of Şalakh (26°41′N 55°42′E) hills form a plateau, W of which they become confused rising in varied and fantastic shapes.

2 A range of dark red hills, largely composed of salt with patches of slate colour, cross Jazīreh-ye Qeshm from N to S about 3 miles W of Kīsh Kūh (26°40′N 55°33′E). There are extensive salt caves at the S end of these hills from which brine exudes onto the plain between the hills and the sea; large deposits of salt remain on the plain after evaporation. Kownī, 8½ miles WSW, is a small village with a few date palms; W of the village a plain extends between the hills and the coast.

Depths

5.126

1 The Flat is an extensive bank, with depths of less than 5 m over it, lying off the SW corner of Jazīreh-ye Qeshm (5.80). Discoloured water, at times almost brown, extends for some distance outside the bank whose outer edge lies about 9 miles S of the island. A narrow, navigable channel lies between the S and W coasts of Jazīreh-ye Qeshm and the bank.

Hazard

5.127

1 Fishing boats at anchor may often be encountered near the edge of The Flat which is indicated by the discolouration of the water.

Tidal streams

5.128

1 Tidal streams N of The Flat set along the channel between the bank and Jazīreh-ye Qeshm; they appear to have no tendency to set towards the shoals.

Principal marks

5.129

1 **Landmarks:**

A table-topped hill, 169 m high, (26°36′N 55°24′E) stands about 1 mile NNW of Kownī (5.125), the hill falls abruptly to the valley on its W side and forms a good mark being the W extremity and the highest part of the range of dark red hills.

The Hummocks (26°35′N 55°18′E) are three remarkable hills within 3 miles of the W end of Jazīreh-ye Qeshm; the W hill is table-topped, the middle has a rounded summit and the E hill is again table-topped. The S sides of these hills are precipitous, the E hill is almost joined to a table-land which extends ENE for about 5½ miles.

Other aid to navigation

5.130

1 **Racon:**

Jazīreh-ye Hengām Light (26°38′N 55°54′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 5.120)

5.131

1 From a position SE of Jazīreh-ye Hengām the track leads W, passing:

S of Hengām-e Qadīm (26°37′N 55°52′E), a comparatively large village at the S end of Jazīreh-ye Hengām. The highest hill of The Hummocks (5.129), bearing 274° ahead, leads towards the outer end of the narrow channel between The Flat and Jazīreh-ye Qeshm. Thence:

S of Ra’s-e Şalakh (26°41′N 55°45′E), a sandy point with a rocky beach; hills stand about 2 miles N of the point. Thence:

2 S of Ra’s-e Tarkūn (26°39′N 55°37′E), from which a rocky ledge extends about 7 cables SE; a short pier extends across the the rocky foreshore NE of the point. Thence:

S of Kīsh Kūh (26°40′N 55°33′E), a hill, 396 m high, with a small table-top, thence:

S of an unnamed point (26°35′N 55°29′E); a summit, 178 m high, stand 5 cables NW of the point. The prominent islet off Ra’s-e Kakūn, bearing 264° ahead, leads through the first reach of the inner channel; the unnamed point, bearing 073° astern, indicates the track for the second. Thence:

3 S of Ra’s-e Kakūn (26°34′N 55°22′E), and the prominent, 3 m high, islet close WSW of the point, thence:

S of Ra’s-e Dastakān (26°32′N 55°18′E), a low rocky point which forms the S extremity of Jazīreh-ye Qeshm, keeping about 8 cables off the point in the middle of the fairway; Ra’s-e Dastakān Light (5.100) is exhibited from a position NW of the point. Two shallow bays, separated by an unnamed point off which lies a prominent and flat drying rock, lie between Ra’s-e Dastakān and Ra’s-e Kakūn.

(Directions continue at 5.102)

Anchorage

5.132

1 Qeshm anchorage, centred on 26°30′N 55°40′E, SW of Jazīreh-ye Hengām (5.121) has been established by the Iranian authorities for ship to ship transfer or bunkering operations. The anchorage has, for the most part, depths well in excess of 30 m, mud, but there is a least depth of 27 m in its S part.

KHŪRĀN STRAIT TO BANDAR-E CHĀRAK

General information

Charts 2441, 2887

Route

5.133

1 From a position S of Ra’s osh Sheyās (26°30′N 54°48′E) the route leads generally W then NW for 34 miles to Bandar-e Chārak (26°44′N 54°16′E).

Topography

5.134

1 The bight between Ra’s osh Sheyās and Ra’s-e Bostāneh, 9½ miles W, has low and sandy shores fronted by a rocky beach; about 1 mile W of Ra’s osh Sheyās are some white sandhills rising, from close to the shore, to about 9 m; W of these hills the land rises in a gentle slope from the coast to the foothills of Kūh-e Bostāneh.

Kūh-e Bostāneh (26°34′N 54°41′E) is a remarkable detached group of volcanic hills of very irregular outline. The highest, which attains an elevation of 560 m, is a ridge near its S end stands a small peak resembling a tower (5.136). The SW part of this group, 3 miles NE of Ra’s-e Bostāneh (2.15), has been mistaken for Ra’s-e Bostāneh when the lower land towards the point has not been visible.

2 Between Kūh-e Bostāneh and the hills NW of Bandar-e Lengeh, 10 miles E, the land rises in a gentle slope to a height of about 90 m, it then falls in cliffs to the S edge of the low plain which lies between the peak and Bandar-e Lengeh.

Kūh-e Namakī (26°38′N 54°25′E), which stands 3 miles inland from Ra’s-e Yared (5.137), is a rugged group of dark coloured volcanic hills with a jagged outline, but no definite summit; from W its bluff shows up well and it is reported that when viewed from SE, its SE edge appears as a peak. Kūh-e Kalat-e Sūrū is a prominent pointed dark coloured summit 12 miles NE of the group.

Tidal streams

5.135

1 Tidal streams between Kad Fārūr (26°26′N 54°32′E) and Ra’s-e Bostāneh, 5 miles NE, are strong causing tide-rips and overfalls with much discolouration of the water.

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Principal mark

5.136

1 **Landmark:**

A small peak, 536 m high, (26°33′N 54°41′E) at the S end of a ridge in the central part of Kūh-e Bostāneh (5.134) resembles a tower, the peak is prominent especially from E or W.

Directions

5.137

1 From a position S of Ra’s osh Sheyās (26°30′N 54°48′E) (5.113) the track initially leads W, passing:

S of Ra’s-e Bostāneh (26°30′N 54°37′E) (2.15); depths between Kad Fārūr and the coast in this vicinity are irregular; a steep-to area of shoals, with a least depth of 7 m, lies SW of the point. Thence:

SSW of Ra’s-e Bostāneh Light (white beacon, red bands) (26°31′N 54°37′E), exhibited from a position on the coast about 1 mile NW of Ra’s-e Bostāneh, thence:

2 NNE of Kad Fārūr (26°26′N 54°32′E), a steep-to shoal of coral, rock, shell and sand with a least depth of 4·6 m; a light-buoy (S cardinal) is moored on the SW part of the shoal. Thence:

SSW of Ra’s-e Yared (26°36′N 54°24′E), a low rounded point, and through to the anchorage off Bandar-e Chārak (5.141).

Anchorages

Bostāneh

5.138

1 **Description.** Bostāneh (26°31′N 54°39′E) is a small fishing village with a round tower set amongst date groves; a flagstaff stands near the shore.

Anchorage may be obtained within the bay between Ra’s osh Sheyās (26°30′N 54°48′E) and Ra’s-e Bostāneh, 9½ miles W; the anchorage is open to the *shamāl,* but it is well sheltered from the *nashī*. Smaller vessels may obtain anchorage in depths of about 7 m off Bostāneh, this berth is partly sheltered from the *shamāl* which in this vicinity blows from W, but larger vessels cannot get close enough inshore to obtain much shelter.

2 **Landing**. Good landing can be made on the sandy beach, near a grove of date palms, 2½ miles W of Ra’s osh Sheyās.

Bandar-e Moghū

5.139

1 **Description.** Bandar-e Moghū (26°34′N 54°32′E) is a bay with low and sandy shores except near Ra’s-e Bostāneh where the beach becomes rocky; on each end of the bay the land rises in a gentle slope to the bases of Kūh-e Bostāneh (5.134) and Kūh-e Namakī (5.134), the land between, and for about 2½ miles inland, is precipitous broken ground.

The large village of Bandar-e Moghū is situated in the N part of the bay in which are several round towers. A large fort, with three remarkable square towers, stands immediately behind the village; date groves lie farther inland of the fort and W of it; low sandhills extend about 2 miles E of the village. Bandar-e Dīvān (Dovvān) is a small village at the head of the bay set amongst date groves; a fort with two white towers stands within the village.

2 **Anchorage** can be obtained about 1 mile S of the village of Bandar-e Moghū in depths of about 7 m, mud and clay; depths decrease regularly in the approach to the anchorage. Unless close inshore very little shelter is obtained from the *shamāl* which in this vicinity blows from W, the coastal bank extending from Ra’s-e Yared (26°36′N 54°24′E) reduces the sea, but some swell rolls in causing a vessel at anchor to ride uneasily.

Anchorage on the E side of Bandar-e Moghū is dangerous during a *shamāl*, but there is good shelter from SE winds; it is open to SW winds which may raise a heavy sea, but the holding is good.

Charts 2887, 3409 plan of Bandar-e Chārak

Bandar-e Ḩasineh

5.140

1 **Description.** Bandar-e Ḩasineh (26°39′N 54°22′E) is a village near the coast, 3½ miles NW of Ra’s-e Yared, which can be identified by a large fort standing between it and the coast. The land behind the village rises gradually to the base of Kūh-e Namakī (5.134); the coast from Bandar-e Ḩasineh to Bandar-e Chārak, 7 miles NW, is low and sandy; it is reported that it may be approached to a 1 mile, but the area is unsurveyed, see chart source data diagram.

Anchorage can be obtained off Bandar-e Ḩasineh, but the berth is open to the *shamāl.*

Bandar-e Chārak

5.141

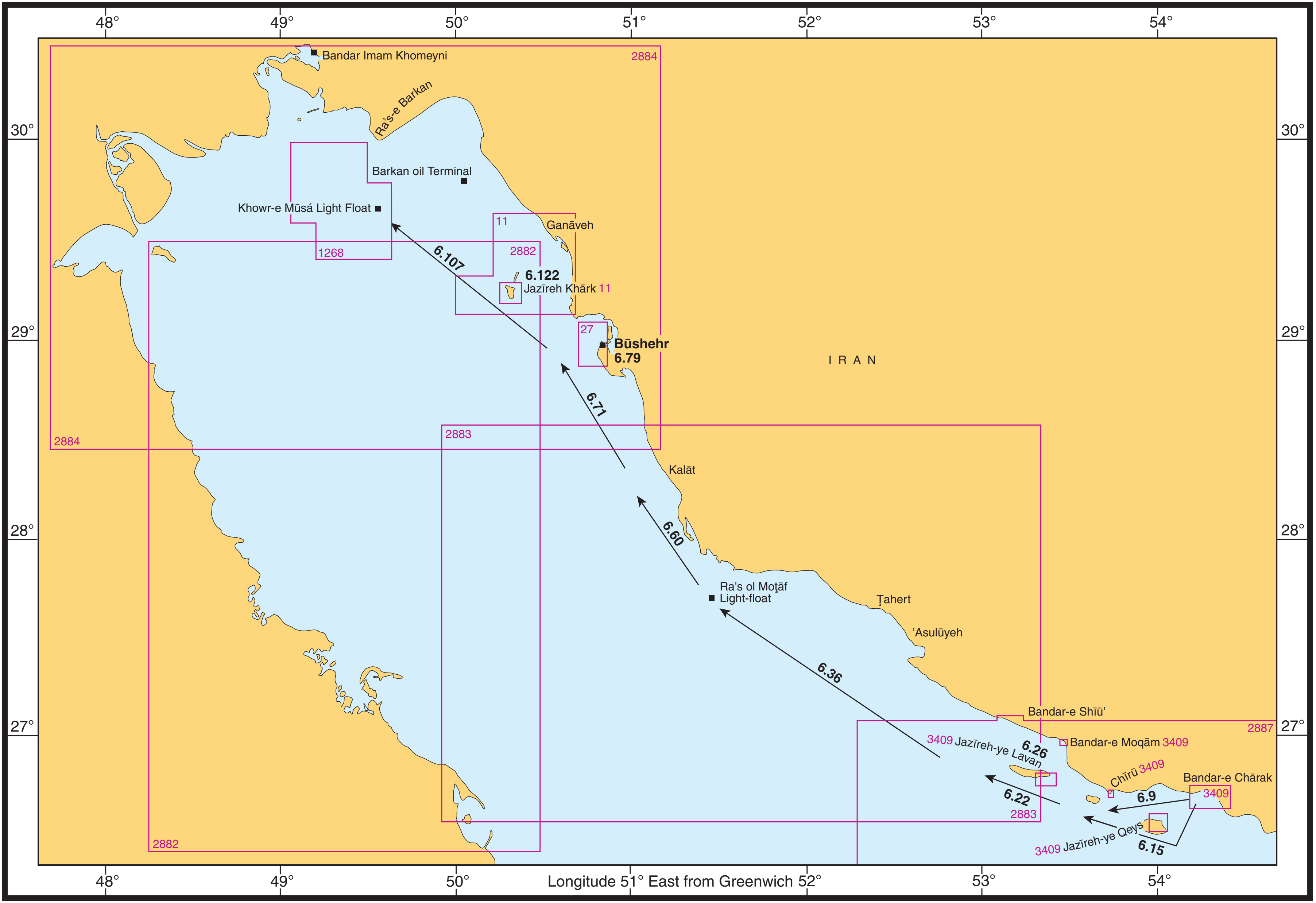
1 **Description.** Bandar-e Chārak (26°44′N 54°16′E) is a town of several towers; a customs house and the Sheykh’s House, which is conspicuous, also stand in the town. Behind the town is a date grove and a small but conspicuous ruined fort standing on a hillock. Jabal Hamar, stands about 1¼ miles W of Bandar-e Chārak and from SW appears wedge-shaped; a conspicuous tank is situated on its S side.

A small creek, in which local craft are hauled up, is entered about 1 mile ESE of the town; a village is situated on its banks. Bandar-e Ţāḩūneh is a village among some date palms on Ra’s-e Ţāḩūneh (not charted), 4 miles WSW of Bandar-e Chārak. In the vicinity of the village are four towers, and a castle on a rocky hillock.

2 **Depths.** The approaches and the area off, Bandar-e Chārak have not been fully surveyed; uncharted shoals may exist, see chart source data diagram.

Anchorage may be obtained about 1 mile S of the town in depths of over 5 m, mud.

Chapter 6 - Persian Gulf, north-east side - Bandar-e Chārak to Ra’s-e Barkan



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CHAPTER 6

PERSIAN GULF NORTH-EAST SIDE — BANDAR-E CHĀRAK TO RA'S-E BARKAN

GENERAL INFORMATION

Charts 2837, 2847

Scope of the chapter

6.1

1 This chapter describes the coastal route along the NE coast of Persian Gulf from Bandar-e Chārak (26°44′N 54°16′E) to Ra's-e Barkan (30°01′N 49°34′E).

The chapter is divided into the following sections:

Bandar-e Chārak to Bandar-e Shīū' (6.7).
Bandar-e Shīū to Kalāt (Dashtī) (6.35).
Kalāt to Ra's-e Barkan (6.69).
Jazīreh-ye Khārk (6.122).

2 Also described are the ports and terminals:

Jazīreh-ye Lavan Oil Terminal (26°47′N 53°20′E) (6.26).
Bandar-e Pars ('Asalūyeh) Port and Terminal (27°28′·6N 52°36′·4E) (6.41).
Bandar Ţāherī Terminal (27°40′N 52°21′E) (6.46).
Būshehr (28°58′N 50°50′E) (6.79).
Jazīreh-ye Khārk: Main Oil Terminal (29°14′N 50°20′E) (6.128).
Jazīreh-ye Khārk: Dorood Oil Terminal (29°13′N 50°21′E) (6.135).
Jazīreh-ye Khārk: KHEMCO Terminal (29°13′N 50°20′E) (6.141).
Jazīreh-ye Khārk: Āzarpād Sea Island Terminal (29°14′N 50°17′E) (6.152).
Barkan Oil Terminal (29°45′N 50°10′E) (6.113).

Topography

6.2

1 The Iranian coast from Bandar-e Chārak to Būshehr is mostly a narrow coastal plain backed by ranges of high rugged mountains which, in general, run parallel to the coast; several small islands lie offshore. North of Būshehr, with the exception of Kūh-e Bang (6.110), the coast is for the most part low; mountains rise some distance inland.

Regulations

6.3

1 **Notice of ETA.** All vessels bound for Iranian ports should report on passing Ra's al Kūh (25°48′N 57°18′E) to Bandar 'Abbās port control, through Bandar 'Abbās Coast Radio Station, giving notice of ETA at the Strait of Hormuz and their port of destination.

See *Admiralty List of Radio Signals Volumes 1 and 6 (3).*

Offshore oilfields

6.4

1 Production platforms and associated structures, including tanker moorings, storage tankers and platforms on pipelines, generally exhibit Mo(U) lights and aircraft obstruction lights, and sound audible fog signals. Unauthorised navigation is prohibited within 500 m of all such structures including storage tankers which can swing about their moorings. Tankers manoeuvring in the vicinity of platforms and moorings should be given a wide berth. For further information see *The Mariner's Handbook.*

2 Within the areas covered by larger scale charts, certain fixed structures, pipelines and cables have been omitted from the smaller scale charts due to their complexity and frequent change. The appropriate larger scale charts should always be used in these areas and vessels should navigate with particular caution.

Anchorages

6.5

1 Anchorages along the NE coast of Persian Gulf described in this chapter afford little shelter from either NW or SE winds.

Natural conditions

6.6

1 **Winds.** The prevailing wind on the NE side of Persian Gulf is the *shamāl* which blows between WNW and NNW; in winter it is often squally and more violent, but of shorter duration than in summer when it is a persistent NW wind; during June and July the *shamāl* blows for several days at a time with lulls at night.

Currents. Strong, but generally irregular, currents are reported off several of the coastal areas.

BANDAR-E CHĀRAK TO BANDAR-E SHĪŪ'

GENERAL INFORMATION

Chart 2887

Area covered

6.7

1 This section describes the coastal passages, anchorages and harbours from Bandar-e Chārak (26°44′N 54°16′E) to Bandar-e Shīū' (27°05′N 53°08′E).

It is arranged as follows:

Bandar-e Chārak to Jazīreh-ye Hendorābī (6.9).
Jazīreh-ye Hendorābī to Bandar-e Shīū' (6.22).

Topography

6.8

1 The Shībkūh district of Iran extends from Bandar-e Chārak (26°44′N 54°16′E) to Banak, 140 miles NW. The dominant feature is the great maritime range which, at its N end, rises steeply from the shore, it fringes the whole length of the coast before receding gradually inland.

BANDAR-E CHĀRAK TO JAZĪREH-YE HENDORĀBĪ

General information

Chart 2887

Route

6.9

1 **North route.** From a position S of Bandar-e Chārak (26°44′N 54°16′E) (5.141) the route leads W for 36 miles to a position S of Jazīreh-ye Hendorābī (26°41′N 53°38′E). Passage N of Jazīreh-ye Qeys (26°32′N 53°58′E) is not

recommended at night unless proceeding to the anchorage (6.21); the island should not be closed to a distance of less than 2 miles.

South route. From a position S of Bandar-e Chārak the route leads SW for 17 miles to a position ESE of Jazīreh-ye Qeys, then W for 26 miles to a position S of Jazīreh-ye Hendorābī.

Topography

6.10

1 When within 10 miles of the coast Kūh-e Namakī (6.12) is obscured by the lower coastal range, which lies parallel to the shore, extending W from Bandar-e Chārak (26°44′N 54°16′E) to Bandar-e Nakhīlū, 42 miles WNW. Between Bandar-e Chārak and Bandar-e Korzeh, 13 miles W, the shore is steep-to; the coastal plain extends a short distance inland to the lower coastal range; the coast W of the village of Kalāt (Shībkūh) (26°43′·3N 53°52′·9E) rises steeply to a small range of hills.

Tidal streams

6.11

1 Tidal streams between Jazīreh-ye Qeys and the mainland are strong and very irregular.

Principal marks

6.12

1 **Landmarks:**

Kūh-e Namakī (26°57′N 54°07′E) stands about 15 miles NNW of Bandar-e Ţāḩūneh and, except on E bearings, presents a good mark from seaward; the summit is a flattened dome shape, light in colour, with a small hummock on its summit.

A conspicuous round tower within a fort (26°43′·6N 53°52′·5E) stands on a 76 m high hill close NW of the fishing village of Kalāt (Shībkūh) (6.17).

Two conspicuous radar domes (26°32′·1N 53°59′·4E) stand with three radio masts near the summit of Jazīreh-ye Qeys (6.19).

2 **Major light:**

Jazīreh-ye Qeys Light (red and white framework tower) (26°31′·0N 53°58′·8E) is exhibited from the S side of Jazīreh-ye Qeys; two conspicuous water towers (red and white chequered) stand near the main light structure.

Other aid to navigation

6.13

1 **Racon:**

Jazīreh-ye Qeys Light (26°31′·0N 53°58′·8E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

North of Jazīreh-ye Qeys

6.14

1 From a position S of Bandar-e Chārak (26°44′N 54°16′E) (5.141) the track leads W, passing:

S of Bandar-e Ţāḩūneh (26°42·4N 54°12·1E) (5.141), thence:

N of Sar-e Māsheh (26°33′·8N 54°01′·4E) (Chart 3409), a low and sandy point which forms the NE corner of Jazīreh-ye Qeys (6.19); a ruined fort, with two towers close SW, stands on the point. A a steep-to sandy spit extends 6 cables NNE and is marked on its E side by a light-float (yellow); a light-buoy (safe-water) is moored 1 mile NNW of the point. Thence:

2 N of Dih Harbour (26°34′·1N 53°59′·9E) (6.20), thence:

S of Kalāt (Shībkūh) (26°43′·3N 53°52′·9E) (6.17); a conspicuous round tower (6.12) stands behind the village, thence:

N of East Point (26°32′·9N 53°53′·9E), the E extremity of Jazīreh-ye Qeys; dangerous rocks, marked by a light-buoy (W cardinal), lie close N. A ruined tower, not easily distinguished from seaward, stands on the point; a former royal place is also nearby. A prominent stranded wreck (radar conspicuous) lies on the shore about 1½ miles SSW of the point. Thence:

3 S of Chīrū (26°42′·8N 53°43′·8E) (6.18) which lies at the head of a small bay; Chīrū Light (concrete column; 2 m high) is exhibited from close N of Sar-e Chīrū, a low point, which forms the W entrance point to the bay. Discoloured water marks the shallow sandy bank extending about 1 mile S and 3½ miles NW of Sar-e Chīrū (6.18). Thence:

N of Sambarūn Bank (26°34′·2N 53°42′·8E), a steep-to rocky bank with a least depth of 10 m, thence:

4 S of Jazīreh-ye Hendorābī (26°41′N 53°38′E) (6.21); a light (framework beacon) is exhibited from the island, the structure is reported to be difficult to identify during the day.

(Directions continue at 6.25)

South of Jazīreh-ye Qeys

6.15

1 From a position S of Bandar-e Chārak (26°44′N 54°16′E) (5.141) the track leads SSW, passing:

ESE of an isolated shoal (reported 1922) (26°31′·5N 54°05′·9E), with a least depth of 25 m, thence:

SE of the SE corner of Jazīreh-ye Qeys (26°32′N 53°58′E) (6.19), thence:

S of an obstruction (reported 1940) (26°29′·1N 53°59′·1E) close off the S side of the island, about 2 miles SSE of Jazīreh-ye Qeys Light (6.12), thence:

2 S of the small harbour (26°30′·8N 53°55′·7E) close S of Bāgh; lights (lateral) are exhibited from its breakwater heads. Thence:

S of East Point (26°32′·9N 53°53′·9E) (6.14), thence:

S of Sambarūn Bank (26°34′·2N 53°42′·8E) (6.14), thence:

S of Jazīreh-ye Hendorābī (26°41′N 53°38′E) (6.21).

(Directions continue at 6.25)

Anchorages and harbours

Bandar-e Korzeh

6.16

1 **Description.** Bandar-e Korzeh (26°44′N 53°57′E) is a village situated about 17 miles W of Bandar-e Chārak at the head of a small bay; date palms grow nearby.

Anchorage, sheltered from the *shamāl*, may be obtained close off the village.

Kalāt (Shībkūh)

6.17

1 **Description.** Kalāt (Shībkūh) (26°43′·3N 53°52′·9E) is a fishing village situated about 21 miles W of Bandar-e Chārak in which stand two towers, one round and one square; E of the village there are a number of date groves.

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A conspicuous tower (6.12) stands behind the village below which is a tomb on a, 46 m high, hillock.

Anchorage may be obtained close S of Kalāt in a depth of about 7 m, sand, with the W extremity of the land bearing 260°; the anchorage is sheltered from the *shamāl*, and partially from the *nashī*, but from about 8 cables offshore there is little shelter. Depths in the vicinity of the anchorage may be less than charted; E of Kalāt the coast is fringed by a flat.

2 **Landing** at Kalāt is bad and often impracticable.

Charts 2887, 3409 plan of Chīrū

Chīrū

6.18

1 **Description.** Chīrū (26°42′·8N 53°43′·8E) is a fishing village on the W side of a small bay; a square fort, with a large square tower at each corner, stands within the village; a prominent yellow tower, 9 m high, stands on the shore 4 cables NE of the fort.

Anchorage may be obtained off Chīrū in a depth of about 15 m in a good and easily accessible anchorage, but the berth is open to E winds. Note less water than charted has been reported (1975) to lie SW of Sar-e Chīrū (26°42′·2N 53°43′·5E).

Landing may be effected opposite the fort in the village on a steep-to sandy beach, but during E winds landing is bad.

Charts 2887, 3409 plan of Qeys Anchorage

Jazīreh-ye Qeys

6.19

1 **Description.** Jazīreh-ye Qeys (26°32′N 53°58′E), an island about 9 miles S of Bandar-e Korzeh, rises to a plateau about 44 m high; the island is light brown in colour which makes it difficult to distinguish at night, it has low shores made up of sandy beaches lying between rocky points; both E and W extremities are low cliffs. In most places steep-to reefs fringe the island; foul ground extends along the S and W coasts.

2 Safīl (26°34′·3N 53°56′·7E) is a small village situated WSW of a cliffy point, about 5 m high, which forms the N extremity of the island. Landing at the village is poor at low water as the coastal reef dries up to 2½ cables from the shore. The small town of Māsheh is situated in the N part of Bandar-e Māsheh, close S of Sar-e Māsheh (26°33′·8N 54°01′·4E); a small boat jetty extends E from the shore at the N end of the town.

3 **Anchorage**, sheltered from the *shamāl* may be obtained in the N part of Bandar-e Māsheh, 6 cables E of Sar-e Māsheh (6.14). In winter, anchorage may also be found about 5 cables NNW of Sar-e Māsheh, in depths of over 10 m, a position partially sheltered from the *shamāl* which in this area blows from W. A designated waiting anchorage, in depths generally over 40 m, is centred about 5 miles N of Dih Harbour.

Dih Harbour

6.20

1 **General information.** Dih Harbour (26°34′·1N 53°59′·9E), situated on the N side of Jazīreh-ye Qeys, is an entered from N between breakwaters from which lights (lateral) are exhibited.

Development work is in progress (2001) E of the harbour.

Tidal streams in the offing are weak; see 6.11 and *Admiralty Tide Tables Volume 3.*

2 **Directions.** The harbour is approached from N passing W of the light-buoy (safe water) (26°34′·6N 54°00′·9E) moored NE of the harbour entrance.

Anchorage. See 6.19.

Chart 2887

Jazīreh-ye Hendorābī

6.21

1 **Description.** Jazīreh-ye Hendorābī (26°41′N 53°38′E) lies about 3¼ miles SW of Sar-e Chīrū (6.18); its E and W extremities are composed of low cliffs and the island is brown in colour making it difficult to distinguish at night. A flat detached rock, 3 m high, lies in an area of dangerous rocks off the W side of the island; the village of Hendorābī is situated on the N coast; some cultivated land and a few trees grow a nearby.

The greater part of the island is fringed by a reef which, on its N side, extends about 2½ cables offshore making landing near the village difficult at low water. The reefs off the NE and E coasts are a little wider and steep-to; on the S side the reef probably extends about 1 mile offshore and is again steep-to.

2 **Flow.** Tidal streams are strong N of the island, but are weak in the offing; it is reported that on occasion a current sets towards the island and the mainland; at night caution is necessary.

Anchorage may be obtained off the N side of the island in depths of 10 to 15 m, rock; however, the anchorage is open to NW winds.

JAZĪREH-YE HENDORĀBĪ TO BANDAR-E SHĪŪ

General information

Chart 2887

Route

6.22

1 From a position S of Jazīreh-ye Hendorābī (26°41′N 53°38′E) the route leads WNW for 38 miles to a position SSW of Bandar-e Shīū’ (27°05′N 53°08′E).

Topography

6.23

1 Between Chīrū (26°42′·8N 53°43′·8E) and Ra’s-e Nakhīlū, 16 miles NW, the coast rises steeply to light coloured hills which decrease towards NW, terminating near Ra’s-e Nakhīlū. From Bandar Basatin (26°59′N 53°26′E) to Bandar-e Shīū’, 15 miles WNW, the coastal hills rise steeply to heights of over 300 m; a fairly prominent saddle-shaped hill stands near the coast about 2½ miles E of Bandar-e Shīū’. The summits of a range of mountains, between 1200 and 1500 m high, can be seen over the coastal hills; the range runs parallel to the coast about 12 miles inland. See 6.8.

Principal marks

6.24

1 **Landmarks:**

Kūh-e Jazeh (26°48′·6N 53°39′·6E) is a table-topped hummock, 494 m high, which makes a fairly good mark from S.

A conspicuous radio mast (red obstruction lights) (26°48′·0N 53°23′·2E) on the E extremity of Jazīreh-ye Lavan (6.34); more masts stand about 7½ cables W and 6 cables NW, and a water tower 3 cables W.

2 **Major lights:**

Jazīreh-ye Lavan E Light (brown metal framework radio tower) (26°48′·2N 53°21′·4E) exhibited from

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a position about 1¾ miles W of the E end of the island; flares on the island may obscure the light.

Jazīreh-ye Lavan W Light (red metal framework radio tower, 100 m high) (26°48′·5N 53°19′·2E) exhibited from a position about 3¾ miles W of the E end of the island; flares on the island may obscure the light.

Directions

(continued from 6.14 and 6.15)

6.25

1 From a position S of Jazīreh-ye Hendorābī (26°41′N 53°38′E) the track leads WNW, passing:

SSW of Ra's-e Nakhīlū (26°51′·6N 53°29′·2E), a low and ill-defined mainland point; a light (beacon) is exhibited from close inland from the point. The coast here should be approached with caution as a number of shoal depths lie between the NE part of Jazīreh-ye Lavan (6.34) and the mainland; see 6.33. Thence:

SSW of Jazīreh-ye Shītvār (26°47′·5N 53°24′·5E), a small islet fringed with reefs extending up to 1½ cables offshore; a light (white beacon, 2 m high) is exhibited from the SW side of the island. Thence:

2 SSW of Jazīreh-ye Lavan Oil Terminal (26°47′N 53°20′E) (6.26), thence:

NNE of Stiffe Bank (26°26′N 53°07′E) (2.26) and Stiffe Bank Light-float moored over the SE part of the bank, thence:

SSW of the stranded wreck (radar conspicuous) (26°46′·9N 53°16′·4E) lying off the S side of Jazīreh-ye Lavan, thence:

SSW of the W extremity of Jazīreh-ye Lavan (26°50′·6N 53°09′·3E); a light-buoy, marking the edge of the coastal bank, is moored 6 cables NW of the point. Thence:

3 SSW of a detached shoal (26°49′·7N 53°06′·5E) with a least depth of 7·2 m, thence:

SSW of Bandar-e Shīū' (27°05′N 53°08′E) (6.52), a light is exhibited from within the village from the Customs House.

4 **Useful mark:**

White tanks (26°48′·2N 53°20′·4E) N of the causeway leading to Jazīreh-ye Lavan trestle pier (6.29).

(Directions continue at 6.40)

Jazīreh-ye Lavan Oil Terminal

Charts 2887, 3409 plan of Lavan Oil Terminal

General information

6.26

1 **Position and function.** Jazīreh-ye Lavan Oil Terminal (26°47′N 53°20′E) is situated on the S coast of Jazīreh-ye Lavan (6.34), 2½ miles W of the E extremity of the island. The terminal has two deep water berths for crude oil exports.

Topography. See 6.34.

Port limits. The port limits extend seawards and is under the control of Lavan Oil Terminal.

2 **Approach and entry.** The tanker anchorage, the cargo ship anchorage and the pilot boarding position are all approached from S which is open and free of dangers; the terminal berths are approached from ESE.

Traffic. In 2004 the terminal was used by 29 vessels with a total dwt of 3 259 482 tonnes.

Port Authority. Iranian Offshore Oil Co, 339 Shahid Beheshti Avenue, Tehran 15–116, Iran.

Limiting conditions

6.27

1 **Deepest and longest berth.** No 1 Berth; see 6.31.

Tidal levels. Mean spring range 1·1 m; mean neap range 0·4 m. See *Admiralty Tide Tables Volume 3.*

Density of water is 1·028 g/cm^3.

2 **Maximum size of vessel handled.** The terminal can handle vessels up to 200 000 dwt and a maximum length of 259 m; vessels of up to 225 000 dwt may be handled with prior approval.

Local weather and sea state. A heavy sea and swell is experienced at the oil terminal throughout the winter months, during this period strong SE gales, with little or no warning, may occur and last for several days. Berthing may not be possible during periods of bad weather.

Arrival information

6.28

1 **Port operations.** The port operates day and night.

Notice of ETA required. Send ETA 96 hours and 48 hours prior to arrival; see 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Tankers waiting for a berth may obtain anchorage 2 miles ESE of the loading berths; the holding is reported poor. Cargo vessels may obtain anchorage N of the tanker anchorage. Lights in line (325·7°), which may aid the approach to the waiting anchorages, are exhibited about 5 cables W of the SE corner of Jazīreh-ye Lavan. A shoal, with a least depth of 9 m and on which are fresh water seabed springs that can cause false readings from echo sounders, lies NE of the leading line, 8 cables SSW of Jazīreh-ye Shītvār (6.25).

During periods of NW winds, anchorage may be obtained in a depths of about 7 m, 8 cables SSE of the E end of Jazīreh-ye Shītvār.

2 **Prohibited anchorage.** Anchorage is prohibited within the port limits; and within 3½ cables of the submarine pipelines laid S and SW from the shore W of the terminal pier.

Submarine pipelines connect the terminal with the Sassan Oilfield, Reshadt (Rostam) Oilfield, Resalat (Rakhsh) Oilfield and Balal Oilfield. The E and W limits of the pipeline area are indicated by pairs of lights in line, 001½° and about 055° respectively.

3 **Pilotage** is compulsory for all vessels; berthing master boards about 1½ miles ESE of the terminal; see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs. Tugs are available.

Harbour

6.29

1 **General layout.** The terminal consists of a berthing jetty connected to the shore by a trestle pier and a short causeway; the jetty, 378 m long, provides two berths; No 1 (outer) and No 2 (inner).

A boat harbour, used by lighters, is entered at the SE corner of Jazīreh-ye Lavan; a light is exhibited from the breakwater.

Hazard. The oil flares onshore, when burning, are conspicuous; at night, however, they may make the identification of navigational lights difficult.

2 **Tidal streams** at the oil terminal change 1 to 2 hours after HW and LW, slack water periods are short. During springs rates of up to 2 kn are quite usual; sometimes unberthing is not possible during a full ebb. The streams also run strongly between Jazīreh-ye Lavan and Jazīreh-ye

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Shītvār (6.25); the in-going stream sets NNE and the out-going SSW, causing ripples on the spit extending from the E end of Jazīreh-ye Lavan.

Directions for entering harbour

6.30

1 **Jazīreh-ye Lavan Oil Terminal Leading Lights:**

Front light (white post) (26°47′·7N 53°19′·7E).
Rear light (white post) (300 m NW).

The structures are reported to be difficult to identify; at night the lights may be easily confused with other lights in the vicinity.

Approach. From a position S of the pilot boarding position the alignment (303¾°) of these lights leads about 2 miles NW to the terminal jetty.

Berths

6.31

1 No 1, the outer berth, has an alongside depth of 21·1 m and can accommodate vessels up to 225 000 dwt on a maximum departure draught of 19·2 m. No 2, the inner berth, has an alongside depth of 19·8 m and can accommodate vessels up to 65 000 dwt on a maximum departure draught of 10 m. Lights are exhibited from dolphins at each end of the jetty.

Port services

6.32

1 **Repairs:** No repair facilities available.

Other facilities: No oily waste reception facilities.

Supplies: Fuel oil and diesel available; no stores, supplies or fresh water available.

Communications: Airport (no scheduled services).

Harbour regulations. Pollution regulations are strictly enforced; rat guards must be fitted.

Anchorages

Charts 2887, 3409 plan of Bandar-e Moqām

Bandar-e Moqām

6.33

1 **Description.** Bandar-e Moqām (26°57′·9N 53°28′·5E) a village, with a large square fort standing about 500 m N, is situated on the shore of Bandar-e Nakhīlū. A conspicuous triangular cliff, 50 m high, stands 1½ miles NW of the village; a dip or fall in the coastal hills, NE of the village, is reported to make a good mark.

Depths. The area off Bandar-e Moqām is unsurveyed; uncharted shoals may exist; see chart source data diagram.

2 **Tidal streams** are strong between the islands of Jazīreh-ye Lavan and Jazīreh-ye Shītvār, and Ra's-e Nakhīlū; streams set across the channel, but in the offing they are weaker with maximum rates of 1 kn.

Anchorage may be obtained in a depth of 11 m, mud with the fort bearing 058°, about 1½ miles distant; or closer inshore in depth of about 6 m with the fort bearing 063°, about 1 mile distant.

Anchorage, sheltered from E winds, may be obtained off the mouth of Rūd-e Moqām (26°55′·3N 53°29′·1E), and the coast N of the river.

Charts 2887, 3409 plan of Lavan Oil Terminal

Jazīreh-ye Lavan

6.34

1 **Description.** Jazīreh-ye Lavan (26°49′N 53°16′E) is about 13 miles long and 2¼ miles wide and lies 6½ miles SW of Ra's-e Nakhīlū (6.25). The island is of a brownish colour rising from low E and W extremities to numerous hummocks with elevations of over 60 m, it is very difficult to identify in hazy weather; soundings are of little use when approaching.

The N coast, bordered by cliffs with one or two sandy bights, is fringed by a narrow coastal reef extending in places up to 2 cables offshore. At Ra's Fort, a village at the W end of the N coast, there is a round tower and a few trees; a small bight in the coast, 5 cables E of Ra's Fort, affords good landing. Deh Gūn and Lāzeh are two small villages in the E part of the N coast; a tower stands within Lāzeh; the village of Lāz is situated near the E end of the N coast on a small rocky point, S of the village are numerous large round trees and a few date palms.

2 Qorţ (26°47′·3N 53°17′·8E) is a village near the middle of the S coast in which is a tower and a grove of trees; between the village and the rocky W extremity of the island, the coast is mostly of rocky cliffs fringed by a narrow reef. A stranded wreck (radar conspicuous) lies 1½ miles W of Qorţ.

Anchorage, sheltered from NW winds, can be obtained between 3 and 5 cables off Qorţ in depths of about 30 m, sand and broken shell. Anchorage, sheltered from SE winds, may be obtained in depths between 7 and 13 m, sand and rock, about 5 cables NE of Lāz (26°48′·4N 53°22′·5E). On the approach of a strong *shamāl*, which in this vicinity blows from the WNW, it will be necessary to depart.

BANDAR-E SHĪŪ' TO KALĀT (DASHTĪ)

GENERAL INFORMATION

Chart 2883

Area covered

6.35

1 This section describes the coastal passage, anchorages and harbours from Bandar-e Shīū' (27°05′N 53°08′E) to Kalāt (Dashtī) (28°24′N 51°09′E).

It is arranged as follows:

Bandar-e Shīū' to Ra's ol Moţāf Light-float (6.36).
Ra's ol Moţāf Light-float to Kalāt (Dashtī) (6.60).

BANDAR-E SHĪŪ' TO RA'S OL MOŢAF LIGHT-FLOAT

General information

Chart 2883

Route

6.36

1 From a position SSW of Bandar-e Shīū' (27°05′N 53°08′E) the route leads WNW for 96 miles to a position SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E).

Topography

6.37

1 The coast from Qalātu (27°05′·9N 53°05′·9E) to beyond Bustanū, 4 miles WNW, is indented and mainly cliffy; hills rise steeply from small sandy bays. A remarkable brown ridge (27°12′·5N 52°49′·7E), 115 m high, stands 12 miles WNW of Bustanū; the coast between the ridge and Ra's-e Nāy Band, 17 miles NW, is bold, steep-to and rocky with low cliffs; several villages lie along this coast. Between 'Asalūyeh (27°28′·6N 52°36′·4E) and Banak, 40 miles NW, stands a coastal range of mountains whose seaward side appears precipitous and mostly barren; the coast is then, for about 7 miles W of Banak (6.58), low and sandy.

2 The peaks forming the Kūh-e Darang (28°06′N 51°36′E) (6.61) group are separated from the Kūh-e Kochehr range (27°56′N 52°08′E), and another inland range extending NW from it, by a wide valley extending NW from the coast W of Banak. An extensive low and swampy plain lies N and NW of the mountain group.

Principal marks

6.38

1 **Landmarks:**

Jabal Sīr-i-Yalfal (27°34′N 52°37′E), a summit at the NW end of the Kūh-e Haftchah range, appears as a great step except from W from where it looks like a sharp notch.

Jabal Sīri (27°48′N 52°13′E), a summit at the SE end of Kūh-e Kochehr (6.37), is a remarkable barn-shaped peak which from W appears small; closer inshore it is obscured by the coastal range.

2 **Major light:**

Ra's-e Nāy Band Light (27°23′·3N 52°34′·8E).

Other aid to navigation

6.39

1 **Racon:**

Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 6.25)

6.40

1 From a position SSW of Bandar-e Shīū' (27°05′N 53°08′E) the track leads WNW, passing:

SSW of Bustanū (27°07′·3N 53°01′·8E) (6.54); Shāhīn Kūh, a remarkable flat topped hill with precipitous sides, stands NW of Bustanū. Thence:

NNE of Cable Bank Light-float (26°46′·6N 52°31′·9E) (2.26) moored in the centre of Cable Bank, thence:

SSW of Ra's-e Nāy Band (27°23′·2N 52°34′·5E), a low, white, rocky cliff; the land SE rises gradually to summits of white, precipitous, flat-topped cliffs between 18 and 24 m high; the W side of the point is steep-to, a grove of date palms grows inland from the point. Ra's-e Nāy Band Light (6.38) is exhibited from close E of the point. The port of Bandar-e Pars and its SPM berth (6.41) lie NNW of the point. Thence:

2 SSW of an area of detached shoals (27°34′·0N 51°47′·0E) which lie SE of the drying bank of Ra's ol Moţāf; the SW shoal has a least depth of 18 m. Thence:

SSW of a dangerous wreck (position approximate) (27°35′·2N 51°35′·0E), thence:

SSW of an oil production platform (27°38′·2N 51°31′·4E) (lit), thence:

SSW of Ra's ol Moţāf Light-float (framework tower on red hull) (27°36′·6N 51°26′·6E) moored on a detached bank, with a least depth of 14·6 m, SW of Ra's ol Moţāf drying bank.

3 **Useful mark:**

A prominent large fort with a square tower (white band near top) stands on a hill W of Ţāherī (6.46), it is clearly visible from W from a distance of about 7 miles; a second fort stands at the E end of the village but is obscured by trees when approaching from W.

(Directions continue at 6.64)

Bandar-e Pars Port and Terminal

General information

6.41

1 **Position and function.** Bandar-e Pars ('Asalūyeh Port) (27°32′N 52°32′E) and SPM terminal lie N of Bandar Nāy Band (6.55).

Topography. A large date grove extends about 1 mile NW of the entrance point to Bandar Nāy Band; a ruined tower stands in the village of 'Asalūyeh, but it is not easily distinguished. Nakhl-e Taqī is a village about 2 miles NW of 'Asalūyeh where there is a fort, a tower and some date palms; a few large trees grow between Nakhl-e Taqī and 'Asalūyeh.

Traffic. In 2004 the terminal and port was used by 46 vessels with a total of 4 230 241 dwt.

Limiting conditions

6.42

1 **Controlling depths.** A reef extends over 5 cables offshore for some distance NW of the N entrance point to Bandar Nāy Band; depths of between 9 and 11 m lie close outside the reef which is very steep-to and should not be approached into depths of less than 13 m. Another reef extends up to 2½ cables W of Nakhl-e Taqī; close off the reef are depths of about 15 m; caution is necessary if approaching.

Arrival information

6.43

1 **Notice of ETA required.** See 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

Anchorage. An anchorage area, centred on 27°34′·1N 52°28′·8E, is situated NW of the SPM berth. Anchorage has also been obtained off 'Asalūyeh in a depth of 13 m about 8 cables offshore with the ruined tower bearing 090°, but the holding is poor and a cautious approach is necessary due to the very steep-to reef off the village.

Prohibited anchorage. Anchorage is prohibited SE of the SPM berth, between the boundary of the restricted area surrounding the berth and the gas pipelines.

2 **Submarine pipelines.** Gas pipelines from the South Pars Gas Field (2.25) land 2 miles E of the SPM berth; see 1.17.

Restricted area. The SPM is moored within a restricted area of 1½ miles radius.

Harbour

6.44

1 The SPM (light) is moored WSW of the new port at Bandar-e Pars.

Directions

6.45

1 The anchorage, SPM berth and the port are approached from SW.

Useful mark:

Bandar Ţāherī Light (27°39′·2N 52°21′·5E) (6.50).

Bandar Ţāherī Terminal

General information

6.46

1 **Position and function.** Bandar Ţāherī Terminal (27°40′N 52°21′E) is situated on the SW coast of Iran, 70 miles NW of Jazīreh-ye Lavan; the SBM is an oil export facility.

Topography. Ţāherī is a village situated on the shores of the small bay of Bandar Ţāherī; the village extends up the sides of the coastal hills which rise from the head of the bay to elevations of over 200 m. The NW entrance point to the bay is low and almost steep-to; near the point are some date groves.

2 **Approach and entry.** The SBM is approached from SW, passing NW of Bandar Ţāherī Light-buoy (safe water) moored about 1 mile S.

Port Authority. National Iranian Gas Company, PO Box 6535–6394, 4th Floor No 701, Vali-E-Asar St, 15946 Tehran, Iran.

Limiting conditions

6.47

1 **Controlling depth.** The minimum depth at the berth is 16 m; a 2 m under-keel clearance is recommended within 240 m radius of the SBM.

Maximum size of vessel handled. The terminal can handle vessels up to 40 000 dwt.

Arrival information

6.48

1 **Port operations.** The port operates day and night; mooring and unmooring dependant on prevailing weather conditions.

Notice of ETA required. Send ETA 72, 48, 24, 12 and 6 hours prior to arrival; see 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Anchorage may be obtained in the vicinity of the pilot boarding position S of Bandar Ţāherī Light-buoy (safe water); the holding ground is reported poor, especially in SW winds and swell.

2 **Prohibited anchorage**. Anchorage is prohibited within 1 mile of the terminal buoy.

Submarine pipelines connect the terminal buoy to the shore.

Pilotage is compulsory for all vessels and is available day and night; pilot/loading master boards about 1 miles S of Bandar Ţāherī Light-buoy. See *Admiralty List of Radio Signals Volume 6 (3).*

3 **Tugs** available.

Prohibited area. Vessels should not enter the port limits, about 1 mile S of the SBM, without a pilot/loading master embarked.

Harbour

6.49

1 **General layout.** The terminal consists of a SBM berth in open water within Bandar Ţāherī.

Directions

6.50

1 **Useful mark:**

Bandar Ţāherī Light (27°39′·2N 52°21′·5E) exhibited from the shore ESE of the berth.

Port services

6.51

1 **Supplies:** No fuel oil or fresh water available.

Anchorages and harbours

Bandar-e Shīū’

6.52

1 **Description.** Bandar-e Shīū’ (27°05′N 53°08′E) is a situated on the E point of a small shallow indentation in the coast; a large square white mosque, with a fort close E, stands within the village; a peaked hill rises ESE and a light is exhibited from the Customs House. Gill Rock, a drying rock, lies close offshore about 2¾ cables WNW of the village.

Anchorage may be obtained in a depth of 9 m, sand, about 2½ cables off the small boat harbour; the holding is reported good, even when the *shamāl* is blowing; swells in this area, which may make landing impossible, are reported to be much less than in other open anchorages along this coast.

2 **Tidal streams** are weak.

Landing. A small boat harbour, with a least depth of 0·5 m, is formed by a flat, black, rocky ledge at the SE end of the village; the harbour provides the best landing when conditions allow.

Qalātu

6.53

1 **Description.** Qalātu (27°06′N 53°06′E) is situated about 2½ miles WNW of Bandar-e Shīū’; hills rise steeply from a rocky point situated between the two villages, but closer to Qalātu.

Anchorage may be obtained off the village, about 2½ cables from the rocky point, as close to the shore as draught will allow; vessels of moderate size may obtain better protection off Qalātu during a *shamāl* than off Bandar-e Shīū’.

Bustanū

6.54

1 **Description.** Bustanū (27°07′N 53°02′E) lies at the head of a small bay 4 miles WNW of Qalātu. A ridge of grey coloured rock, 30 m high, runs down to the coast E of the village; on its S end stands a tower. A small creek, navigable by dhows, is entered N of Bustanū, but its entrance is difficult to identify.

Anchorage may be obtained off Bustanū in a depth of 13 m, about 6 cables SE of the village; this anchorage may offer the best protection available from the *shamāl*. Depths of 9 m lie 2½ cables offshore decreasing to 4 m when about 1 cable from the beach.

2 **Landing.** A considerable surf runs inshore, but safe landing can be effected at the SE end of Bustanū by steering for the centre of the village then, when clear of the breakers, steering SE parallel with the coast; smooth water is obtained inside the reef which extends WNW from the SE end of the village.

Bandar Nāy Band

6.55

1 **Description.** Bandar Nāy Band is entered between Ra’s-e Nāy Band (27°23′·2N 52°34′·5E) and a low point, 5 miles NNE; depths within the bay are less than 10 m; the head of the bay is shallow, drying up to 1½ miles offshore. A small, steep-to, rocky patch, with a least depth over it of 5·5 m, lies, about 1½ miles SW of the N entrance point and is not easily identified; passage N of the patch is not

recommended; a better entrance lies between the patch and Ra's-e Nāy Band. A light-buoy (safe water) is moored about 1 mile W of the N entrance point.

2 The S shore of the bay is low and rocky, behind which the coastal hills rise to moderate heights; Nāy Band, situated 2½ miles E of Ra's-e Nāy Band, has some remarkable trees in its vicinity; a square fort stands at the W end of the village. A reef extends 2½ cables from the N entrance to the bay and fringes a sandy point E of it; the shore E of the sandy point is low and swampy, and intersected by mangrove creeks; at its head the bay is again low, sandy and swampy.

3 Gāvbandī Valley, in which flows the Rūd-e Gāvbandī, extends over 30 miles ESE from the head of the bay past the small town of Gāvbandī; on its N side there are hills of a considerable height and fairly precipitous. About 15 miles ESE of its head there is a bluff, 1097 m high, which is fairly prominent from WNW.

Tidal streams in the vicinity of Ra's-e Nāy Band and within the bay are very weak.

Anchorage. Bandar Nāy Band provides sheltered anchorage from E winds, but it is exposed to the *shamāl* which raises a heavy sea in the bay. Anchorage may be obtained in a depth of 11 m with the village of Nāy Band bearing between 135° and 180°, 1 mile distant, but the holding is reported poor.

4 **Landing** may be effected anywhere within Bandar Nāy Band except during periods of N or W winds which raise a heavy surf.

Akhtar

6.56

1 **Description.** Akhtar (27°42′·0N 52°13′·9E), situated about 6 miles WNW of Bandar Ţāherī (6.46), is almost hidden among date groves; a large, round and prominent mosque stands in the centre of the village.

Anchorage, exposed to the *kaus*, which blows between S and E, may be obtained in a depth of 20 m in good holding, 5 cables SW of the prominent mosque.

Tombak

6.57

1 **Description.** Tombak (27°43′·9N 52°10′·7E), situated about 10 miles WNW of Ţāherī, has a few trees interspersed among its houses; groves of date palms grow at both ends of the village. Two reefs, one each side of the village, are marked by breakers and lie parallel with the coast between 5 and 8 cables offshore, forming a boat harbour in which dhows anchor. The W reef is about 1½ miles long and the E reef about 1 mile; a channel, about 5 cables wide, lies between the reefs.

2 **Anchorage** may be obtained off Tombak in a depth of 18 m; though open it is reported to be a moderately good berth during a *shamāl*. A light-buoy (safe-water) is moored in the vicinity of the anchorage.

Kangān

6.58

1 **Description.** Kangān (27°50′·0N 52°03′·5E) is an important town and fishing harbour standing behind a sandy beach; there is a tower at its N end and a large grove of date palms NW. The major town of Banak is about 3 miles NW.

Harbour. The harbour is protected by stone breakwaters within which is a pier, 150 m long, for use by coastal and fishing vessels; lights (lateral) are exhibited from the breakwaters. A light-buoy (safe water) is moored 1 mile offshore SW of the town.

2 **Anchorage** may be obtained off Kangān from 5 to 8 cables offshore in a depth of 9 m; the anchorage is partially sheltered from the *shamāl*, but some swell does roll in from WSW.

Deyyer

6.59

1 **Description.** Deyyer (27°50′·3N 51°56′·3E) is situated on the coast 5 miles WSW of Banak. A square fort, with two towers, stands within the town and the Sheykh's House, a white two-storeyed building with a flagstaff, stands near the fort; a large grove of date palms grows E. A remarkable light grey, isolated rock, from 18 to 24 m high, stands about 8 cables inland and 1 mile W of Deyyer, it has the appearance of a square tower and can be identified from some distance offshore.

A small rocky point, consisting of low cliffs, projects from the coast 2½ miles W of Deyyer; below-water rocks lie about a cable offshore, within which there is a landing place; hills descend to the coast and for about 7 miles W.

2 **Harbour.** The harbour is protected by stone breakwaters within which is a pier, 150 m long, for use by coastal and fishing vessels; lights (lateral) are exhibited from the breakwaters. A light-buoy (safe water) is moored 1 mile offshore S of the town.

Anchorage may be obtained off Deyyer in a depth of 7 m with the fort bearing due N; larger vessels should anchor farther offshore in depths of 15 to 18 m, mud. The anchorage is reported to be good and affords better protection from the *shamāl* than the anchorage off Kangān; tidal streams at springs attain rates of between 1 and 2 kn. Anchorage may also be obtained in a depth of 11 m about 5 cables off the rocky point 2½ miles W of Deyyer; and off the village of Botkhāneh (27°51′·2N 51°45′·1E), but this anchorage is exposed.

RA'S OL MOŢAF LIGHT-FLOAT TO KALĀT (DASHTĪ)

General information

Chart 2883

Route

6.60

1 From a position SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E) the route leads NW, then NNW, for 54 miles to a position SW of Kalāt (Dashtī) (28°24′N 51°09′E).

Topography

6.61

1 From a position close W of Banak the Dashtī coast extends 23 miles W, then 40 miles NNW to Kalāt (Dashtī). Kūh-e Darang (28°05′N 51°36′E), which stands 26 miles NW of Banak, is the summit of a detached group of mountains rising to an elevation of 1026 m at their N end; depending from the direction it is viewed Kūh-e Darang is seen either as one peak, or three to five hummocks; from SW the hummocks are in line and a great bluff appears on the N side of the mountain. Kūh-e Namak (28°15′N 51°42′E), a rounded peak, whose sides are streaked with salt which glistens in the sun, stands at the NW end of the inland range of mountains extending NW from the Kūh-e Kochehr range (6.37).

2 Along the coast of Dashtī from Botkhāneh (27°51′·2N 51°45′·1E) to Khowr-e Zīārat, 32 miles NW, are several groves of date palms, but they are only just visible when close off the island of Nakhīlū (27°49′·6N 51°28′·3E). The

coast in this vicinity is bordered by extensive swamps and fronted by shoals; N of Nakhīlū the coast becomes extremely low. A low sandy ridge extending N of Ra's-e Khān (28°00′N 51°21′E) forms the seaward edge of the swamps which probably constitute part of the delta of Rūd-e Mand and the great valley extending E and N. The coast for a short distance N of Khowr-e Zīārat (28°09′·5N 51°16′·1E) is swampy, it then becomes sandy with small rocky points; it is steep-to about 1 cable offshore. Kūh-e Mānd is a range of coastal mountains rising a few miles N of Khowr-e Zīārat which then trend NNW along the coast through the district of Tangestān (6.72) until they descend down to the plain inland of Būshehr (28°58′N 50°50′E).

Principal mark

6.62

1 **Landmark:**

Funnel Hill (27°52′·9N 51°41′·9E) stands SW of Kūh-e Darang and makes a good landmark; it is table-topped with a small natural pillar.

Other aids to navigation

6.63

1 **Racons:**

Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E).

Kalāt (Dashtī) Light (28°27′·1N 51°06′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 6.40)

6.64

1 From a position SSW of Ra's ol Moţāf Light-float (27°36′·6N 51°26′·6E) (6.40) the track leads 26 miles NW, passing:

SW of Nakhīlū (27°49′·6N 51°28′·3E) a low islet; in its centre stands a square building, composed of loose stones, containing the tomb of a Sheikh; a beacon (low cairn) stands on the NE end of the islet. Thence:

SW of Ra's-e Tahmādu (27°50′·8N 51°27′·1E), the S extremity of the island of Jābrīn formed by a long narrow strip of sand on which some tufts of grass grow; the island is uninhabited, but is frequented by flamingoes, pelicans and curlews. A light is exhibited from a beacon on the W side of its S part. An extensive swamp E of the island, intersected by deep creeks, extends N to Khowr-e Zīārat, 16 miles NNW. Thence:

2 SW of Ra's-e Jābrīn (27°55′·6N 51°24′·2E), the SW extremity of swamps which extend from the mainland to join those N of the island of Jābrīn, thence:

SW of the gas production platform (27°54′·2N 51°18′·3E) in the S part of the Kangān Gas Field, from which a light is exhibited, thence:

SW of the unlit production platform (27°56′·6N 51°13′·5E) part of the Kangān Gas Field. There are a number of platforms in the field which extends up to 7 miles offshore between Ra's-e Jābrīn and Ra's-e Khān, the S end of a very low sandy ridge which almost covers at HW. Not all the production platforms are lit; they should be given a clear berth. Thence:

3 WSW of a wreck (position approximate) (28°04′·1N 51°04′·1E) with a safe clearance depth over it of 40 m, thence:

WSW of Khowr-e Zīārat (28°09′·5N 51°16′·1E) (6.66), thence:

WSW of Kalāt (Dashtī) (28°24′N 51°09′E) (6.68).

(Directions continue at 6.75)

Anchorages and harbours

Ra's ol Moţāf

6.65

1 **Description.** Ra's ol Moţāf (27°44′N 51°38′E) is the SE extremity of a drying bank of sand over rock lying on an area of shoal ground which extends about 18 miles SE from the island of Nakhīlū (27°49′·6N 51°28′·3E). It has been reported that the bank extends farther W and S than charted.

Tidal streams are reported to set E with the in-going stream and W with the out-going over Ra's ol Moţāf; SW of the bank they appear to set NW with the in-going stream, and SE with the out-going. A perceptible in-draught into the bay, E of Ra's ol Moţāf, has been observed on several occasions during the period of the out-going stream. At springs these streams attain a rate of about 2 kn; inside the shoals and along their outer edges the rates are reported to be strong.

2 **Anchorage,** sheltered from the *shamāl*, may be obtained in depths of about 10 m or less off Ra's ol Moţāf, with Funnel Hill (27°52′·9N 51°41′·9E) (6.62) bearing 330° and Jabal Sīri (27°48′N 52°13′E) (6.38) bearing 073°, but local knowledge is required. There is no good shelter from the *shamāl* between here and Būshehr, 95 miles NNW; it is used by vessels caught by NW gales when passing this part of the coast.

Side channel. Khowr-e Khān (27°46′N 51°40′E), entered NE of Ra's ol Moţāf, is a channel used by small local craft able to pass through a boat channel N of Nakhīlū (6.64). Omm ol Karam (27°50′·2N 51°33′·6E) is a low lying islet situated 1 mile WSW of Ra's-e Omm ol Karam, a point on the mainland in the NW part of Khowr-e Khān; Umm Sila, 3 miles NW, is another small, low and sandy islet lying close offshore.

Khowr-e Zīārat

6.66

1 **Description.** Khowr-e Zīārat (28°09′·5N 51°16′·1E) is a small creek with low banks, about 9 miles N of Ras-e Khān, which forms the mouth of Rūd-e Mand (6.61); it is open NW and can be entered by boats at high water; after rains it discharges large volumes of water. In 1958 there was a bar depth of 0·3 m and depths of between 1 and 3 m in the channel for about 2 miles up-river. Lāvar Kabkān is a small coastal village about 5 miles N of Khowr-e Zīārat.

Anchorage, which is open, may be obtained about 1½ miles off the entrance to Khowr-e Zīārat, in depths of between 7 and 8 m, mud; depths gradually decrease towards the coast.

Balāngestān

6.67

1 **Description.** Balāngestān (28°17′·1N 51°14′·6E), a small coastal village with a square tower, is situated 3 miles NW of Lāvar Kabkān; two miles NNW is another village with two square towers, one with a flagstaff, standing on the bluff of a sandy hill, 18 m high. Two sickle-shaped peaks, points opposed, are prominent when approaching the village from NW.

Anchorage may be obtained about 1¾ miles off Balāngestān in depths of between 7 and 10 m. Small vessels may obtain anchorage about 8 cables offshore in a depth of 5 m with the two sickle-shaped peaks bearing 107°; local knowledge is required.

Kalāt (Dashtī)

6.68

1 **Description.** Kalāt (Dashtī) (28°24′N 51°09′E) is a small fishing village about 8 miles NNW from Balāngestān; between the villages lie several other small villages interspersed by groves of date palms and cultivated fields.

Anchorage has been obtained near Kalāt, 8 cables offshore, in a depth of about 7 m.

KALĀT (DASHTĪ) TO RA'S-E BARKAN

GENERAL INFORMATION

Charts 2847, 2883, 2884

Area covered

6.69

1 This section describes the coastal passage, anchorages and harbours from Kalāt (Dashtī) (28°24′N 51°09′E) to Ra's-e Barkan (30°01′N 49°34′E).

It is arranged as follows:

Kalāt (Dashtī) to Būshehr (6.71).
Būshehr to Ra's-e Barkan (6.107).

Tidal streams

6.70

1 Tidal streams off the coast of Tangestān are weak and often imperceptible.

KALĀT (DASHTĪ) TO BŪSHEHR

General information

Charts 2847, 2883, 2884

Route

6.71

1 From a position WSW of Kalāt (Dashtī) (28°24′N 51°09′E) the route leads NW for 38 miles to a position SW of Būshehr (28°58′N 50°50′E).

Topography

6.72

1 The coast of Tangestān from N of Kalāt (Dashtī) (28°24′N 51°09′E) to Halīleh, 30 miles NNW, is generally low, sandy and backed by the Kūh-e Mānd coastal range; there are several small points along the coast which afford protection from NW winds. Bārakī is the collective name given to the eight S coastal villages of Tangestān; landing can usually be effected at any of these villages, but they should be approached with caution as depths may be less than indicated on the chart.

Principal marks

6.73

1 **Landmarks:**

Kūh-e Sehtanj (28°29′N 51°11′E), one of the summits of the coastal range, stands about 4 miles inland, and makes a good mark, it comprises of two pinnacles close together with another smaller pinnacle farther N. Kūh-e Shahābī, 1¼ miles NNW, and Kūh-e Delpari, 2¾ miles NNW, are two more peaks which form a saddle or notch when viewed from NW.

2 Kūh-e Khowrmūj (28°43′5N 51°27′E) (Chart 2847) is one of the peaks of the main inland range which is visible, except when close inshore, above all parts of the coastal range. From SW it appears as a long convex ridge, but from WNW the ridge is end on and the mountain appears as a fine peak with a long rounded slope on its N side.

A conspicuous domed mosque (28°54′·2N 50°50′·9E), 46 m high, stands in the village of Emāmzādeh (6.79); a conspicuous house stands 5 cables S.

Other aid to navigation

6.74

1 **Racon:**

Kalāt (Dashtī) Light (28°27′·1N 51°06′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 6.64)

6.75

1 From a position WSW of Kalāt (Dashtī) (28°24′N 51°09′E), the track leads NW, passing:

SW of Kalāt (Dashtī) Light (beacon) (28°27′·1N 51°06′·9E) exhibited close NNW of the village of Sālimābādeh, which can easily be identified by the very dark background peculiar to it; there is a grove of date palms at its N end and a few prominent palms at its S. A square tower and a remarkable mosque stand about 1 mile N. Thence:

2 Clear of the light-buoy (isolated danger) (28°28′·5N 50°46′·1E) and the dangerous wreck (position approximate) lying 1 mile W; another dangerous wreck (position approximate) lies 1¾ miles NNE of the buoy. Thence:

SW of the dangerous wreck (28°45′·2N 50°45′·0E) lying 8½ miles WSW of Ra's-e Halīleh a low point with some date palms growing about 1 mile E, which then extend inland towards the marshland at the head of Bandar Halīleh (6.78). A power station and chimney stand close inland from the point. Thence:

3 SW of the light-buoy (W cardinal) (28°49′·0N 50°44′·4E) moored about 1¼ miles WNW of a dangerous wreck, thence:

SW of the light-buoy (W cardinal) (28°57′·3N 50°44′·4E) moored close W of a stranded wreck; note a dangerous wreck (position approximate) lies 7 cables W of the outer end of the Būshehr approach channel.

(Directions continue at 6.112)

Anchorage and harbours

Karrī

6.76

1 **Description.** Karrī (28°25′·0N 51°08′·4E), a coastal village with two towers, the N round and the S square. Khowr Shahābī, 4½ miles N, has a prominent square tower near its centre and a mosque at its N end which though obscured from N shows up well from S.

Anchorage. A good, but open anchorage may be obtained 8 cables off Karrī in a depth of about 7 m.

Bū ol Kheyr

6.77

1 **Description.** Bū ol Kheyr (28°31′·9N 51°05′·8E) is situated in a small bay with several date palms on either side and a prominent round tower at its N end. The village of Āmerī lies about 1½ miles S and the village of Rostamī, with a high round tower in its centre, 2½ miles N.

Anchorage. Small vessels may obtain anchorage about 8 cables off Bū ol Kheyr in a depth of about 5 m; local knowledge is required.

Bandar Halīleh

6.78

1 **Description.** Bandar Halīleh is entered between the village of Bāshī (28°40′·9N 51°04′·6E), in which stands a large round tower, and Ra's-e Halīleh, 12¾ miles NW. The shores of the bay are low and sandy; depths over its greater part are less than 4 m, mud. Delvāz (28°45′·6N 51°04′·3E), with a ruined fort surrounded by date groves, is situated a short distance inland, about 4½ miles N of Bāshī.

2 The N side of the bay is formed by a large salt water swamp which connects Būshehr (6.79), over an area liable to flood, with the great inland plain. The swamp drains through a large creek, which nearly dries; dry sands extend about 3 cables from its mouth. The coast between the creek and Ra's-e Halīleh consists of a ridge of sand, about 1½ m high, covered with tufts of coarse grass, increasing in width towards W.

BŪSHEHR

General information

Charts 2884, 27

Position and function

6.79

1 Būshehr (28°58′N 50°50′E) situated on the W coast of Iran was once the principal port of Iran, but its importance has declined with the development of other ports and facilities; a naval base is situated in its S part. The town is the administrative centre for the provinces of Dashtī and Dashtestān; principal exports include cotton, gum and mohair; imports general merchandise.

Topography

6.80

1 The town of Būshehr is on a rocky ridge, 12 m high, which rises on the peninsula forming the S side of the harbour. South of Būshehr the coast between Ra's-e Halīleh (28°49′·2N 50°53′·3E) and Damāgheh-ye Rīshahr, 6 miles NW, is rocky with cliffs and is fringed by a reef. The village of Halīleh, about 1 mile NW of Ra's-e Halīleh, has clumps of date palms standing about 1 mile N, from where the interior rises to a table-land, 46 m high, between the coast and the marshes. The conspicuous ruins of a white house, surmounted by a white staff with a triangle topmark, stand on the cliffs of a small bay close E of Damāgheh-ye Rīshahr; the ruins of a large fort lie about 4 cables ESE of the point.

2 The coast from N of Ra's-e Shokhāb (28°55′·6N 50°48′·4E) to close S of Būshehr is low and sandy; farther N it becomes low cliffs, about 5 m high. Emāmzādeh (28°54′·1N 50°50′·9E), a village 1½ miles E of Damāgheh-ye Rīshahr, stands on the highest part of the land in this vicinity and can be clearly seen. In its centre is a conspicuous domed mosque; a conspicuous house stands S of the village.

3 North of Būshehr between Ra's osh Shaţţ (29°06′·2N 50°41′·5E) and Ra's Tahima, a small sandy projection 8 miles ENE (not charted), the coast forms the N side of the harbour. It is composed of swamps and extensive mudbanks intersected by numerous large and deep creeks, the entrances to which are shallow; on the mudbanks are a number of drying banks. Jazīreh-ye Abbāsak (29°02′N 50°53′E) an island NE of Būshehr is, except for a narrow strip along its W and N coast, low and swampy. The N extremity of the island is rocky, about 3 m high, on which stands a conspicuous village and a small, 15 m high, tower. A prominent hospital and quarantine station are at its S end. The mainland E of Jazīreh-ye 'Abbāsak is low, barren and in places swampy for some miles, extensive swamps extend N to the Rūd-e Ḩelleh river.

Approach and entry

6.81

1 From SW depths decrease regularly as the coast is approached; it is recommended to stay in depths of over 20 m until making the final approach to the outer anchorage and pilot station. The port is entered through a channel marked by light-buoys (lateral), leading NE through Khowr-e Deyreh then SE through Khowr-e Solţānī.

Aids to navigation in the vicinity of Būshehr are reported to be unreliable; they may be missing, unlit or out of position. Vessels should navigate with particular caution.

Traffic

6.82

1 In 2004 the port was used by 184 vessels with a total dwt of 1 678 754 tonnes.

Port Authority

6.83

1 Ports and Shipping Organisation, 751 Enghelab Avenue, Tehran 15994, Iran.

Limiting conditions

Controlling depth

6.84

1 The outer reach of the entrance channel is maintained at a depth of 9·1 m; the inner 9·5 m. The harbour authorities should be consulted for the latest information on channel depths.

Deepest and longest berth

6.85

1 The main wharf on the W side of the harbour entrance; see 6.101.

Mean tidal levels

6.86

1 Mean spring range 1·3 m; mean neap range 0·3 m. See *Admiralty Tide Tables Volume 3.*

Abnormal water levels

6.87

1 The prevailing wind has a considerable effect on tidal heights; the *shamāl* lowers the general level sometimes by as much as 0·3 m, but winds from between S and E raise the general level. The July spring tide is the highest of the year.

Maximum size of vessel handled

6.88

1 Maximum length 200 m on a maximum draught 8·6 m.

Arrival information

Port operations

6.89

1 The port operates day and night; lightering service available.

Notice of ETA

6.90

1 Vessels should send ETA 48 hours in advance; see 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage

6.91

1 **Outer anchorage.** Anchorage may be obtained NW of the outer end of the entrance channel by vessels waiting to enter or wishing to use the inner anchorage but are constrained by draught; the outer anchorage is exposed.

Prohibited anchorage. An area in which anchorage is prohibited, due to the existence of disused cables, lies in a sector W and SW of Damāgheh-ye Rīshahr (28°54′·1N 50°49′·2E).

Pilotage

6.92

1 Pilotage is compulsory for all vessels entering the port or bound for the inner anchorage; pilot boards in the outer anchorage NW of the outer end of the channel. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

6.93

Tugs are available.

Harbour

General layout

6.94

1 The port of Būshehr lies on the E side of the peninsula on which is situated the town of Būshehr. Berthing facilities extend from the Oil Berth, on the W side of the entrance to Khowr-e Solţānī, through to Khowr-e Pūdar at the inner end of the port. Close within the entrance to Khowr-e Solţānī, between the main wharf and an area under reclamation, the channel has been widened to provide a turning basin with a maintained depth of 9·5 m.

2 South of the turning basin the channel width decreases to about 100 m and to a maintained depth of 7·5 m. Between Ra’s Pūdar (28°58′·4N 50°51′·4E), 9 m high point, and the SW end of Jazīreh-ye Moḩarraq, 4 cables N, a very low and swampy island, the channel divides; Khowr-e Lashkarī leads NE and Khowr-e Pūdar SE to the Naval Quay (6.101) and on through a sandy plain which, at HW springs, floods for many miles.

Natural conditions

6.95

1 **Tidal streams.** In the offing the streams set along the coast with maximum rates of between ½ and 1 kn. In the inner anchorage the in-going stream sets between NNE and ENE, and the out-going between SSW and WSW, at springs it can attain a rate of 1 kn; NE of the inner anchorage the streams over the flats are weak.

In the entrance to Khowr-e Solţānī the in-going stream sets S and the out-going N; in the vicinity of Raq’at as Sāfli, and the shoals at the mouth of Khowr-e Solţānī, the set is E with the in-going stream, and W with the out-going; streams off the town in Khowr-e Solţānī are very strong.

2 **Climatic table.** See 1.145 and 1.150.

Principal mark

6.96

1 **Landmark:**

Būshehr Airport control tower (28°57′·4N 50°49′·4E) stands in the NE part of the airport close SW of the town.

Directions for entering harbour

Outer channel

6.97

1 **Khowr-e Deyreh Leading Lights:**

Front light. Beacon A (pile) (29°01′·6N 50°48′·5E).

Rear light. Beacon B (pile) (7 cables farther NE).

From a position S of the outer anchorage and SW of the outer end of the entrance channel, the alignment (043°) of Khowr-e Deyreh Leading Lights leads NE for about 6 miles through Khowr-e Deyreh, and SE of Raq’at al ’Ali the S extremity of an extensive flat which extends S from the coast E of Ra’s osh Shaţţ, passing:

2 SE of a dangerous wreck (position approximate) (28°57′·6N 50°43′·4E), thence:

NW of a stranded wreck (28°57′·3N 50°44′·4E) marked close W by a light-buoy (W cardinal); and through the outer reach of the channel, marked by light-buoys (lateral). Thence:

NW of Ra’s al Marg (29°01′N 50°48′E) and through to the inner anchorage and the turning area.

Inner channel

6.98

1 From the turning area the channel, marked by light-buoys (lateral), leads SE for about 2 miles through Khowr-e Baḩrānī to the NW end of Khowr-e Solţānī, passing (with reference to the N point of the Būshehr peninsula (28°59′·7N 50°49′·9E)):

NE of Ra’s al Marg (2 miles NW), the NW extremity of the shallow flat on the SW side of Khowr-e Baḩrānī, thence

SW of Kad Lakfeh (1¾ miles NNW), the outer part of the shallow flat on the NE side of Khowr-e Baḩrānī; Ra’s al Jabrī is a number of drying sandbanks at the N extremity of this shallow flat. Thence:

2 NE of Raq’at as Sāfli (5 cables WNW), a drying flat extending NW from the N end of the Būshehr peninsula, thence:

SW of Alafdān (5 cables NNE) a drying bank on the NE side of the entrance to Khowr-e Solţānī. The bank forms the W extremity of an extensive sand and mud flat which extends from the S end of Jazīreh-ye Abbāsak (6.79); N of Jazīreh-ye Moḩarraq (6.94) the bank becomes rocky. Thence:

Through into Khowr-e Solţānī.

6.99

1 **Useful mark:**

A stranded wreck on Alafdān bank lies about 8 cables ENE of the N end of the Būshehr peninsula.

Berths

Anchorage

6.100

1 An inner anchorage, at the NE end of Khowr-e Deyreh and its junction with Khowr-e Baḩrānī, has depths of between 5 and 6 m over a good holding ground of thick mud or clay; anchorage should be obtained clear of the

dredged channel; the NE berths obtain better shelter from the *shamāl*.

Alongside berths

6.101

1 An oil jetty on the SW side of the entrance to Khowr-e Solţānī has alongside depths of 7·5 m. The main wharf, 365 m in length, lies within Khowr-e Solţānī 2 cables SE of the oil jetty, it provides two berths with alongside depths of 7·6 m. A short quay, about 1½ cables SE of the main wharf and abreast the Customs House, has reported depths alongside of 6 m.

A naval quay, with alongside depths of 7·5 m, is situated on the SW side of Khowr-e Pūdar at the inner end of the harbour.

Port services

Repairs

6.102

1 Minor repairs can be undertaken; synchrolift 2500 tonnes capacity; deratting exemption certificates issued.

Other facilities

6.103

1 Hospital; lighters.

Supplies

6.104

1 Fuel oil available by barge; fresh water in limited quantities; stores; provisions.

Communications

6.105

1 Airport close SW of the town.

Side channel

6.106

1 At HW local craft use the channels through Raq'at as Sāfli as a short cut between the outer anchorage and Khowr-e Solţānī; local knowledge is required.

BŪSHEHR TO RA'S-E BARKAN

General information

Chart 2884

Route

6.107

1 From a position SW of Būshehr (28°58′N 50°50′E). (6.79) the route leads NW for 70 miles to a position S of Ra's-e Barkan (6.121) in the vicinity of Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E).

Topography

6.108

1 The coast between Ra's osh Shaţţ (29°06′·2N 50°41′·5E) and Ra's-e Barkan, 78 miles NW, is generally low; the mountains, with the exception of Kūh-e Bang (6.110), lie some distance inland. A series of mountain ranges, between 30 and 40 miles inland, extend N from Kūh-e Gisakan (29°20′N 51°21′E); rising behind them can be seen the summits of much higher mountains, covered in snow in winter. Kūh-e Tāveh Seyāh (29°36′N 50°57′E) stands at the S end of a range of mountains about 31 miles ESE of Kūh-e Bang from which it is separated by a valley. From this general area, a range of hills extends to a position about 4 miles N of the head of Dōhat Deylam (30°13′N 50°00′E) from where it turns NW, decreasing in height, forming the W extent of the Iranian hills; the whole of the head of Persian Gulf being a low alluvial plain.

2 The only islands off this stretch of coast are Jazīreh-ye Khārk (6.122) and Jazīreh-ye Khārkū (6.159) both of which lie about 16 miles NW of Ra's osh Shaţţ.

Tidal streams

6.109

1 Tidal streams along the mainland coast S of Dōhat Deylam (30°13′N 50°00′E) set NW with the in-going stream and SE with the out-going; rates are between ½ and 1½ kn, but increase to 2 and 3 kn off the mouths of rivers. In Dōhat Deylam, off Ra's-e Barkan (30°01′N 49°34′E), the set is NE with the in-going stream, and SW with the out-going.

Principal marks

6.110

1 **Landmarks:**

Kūh-e Gisakan (29°20′N 51°21′E) stands about 38 miles ENE of Ra's osh Shaţţ at the N end of a mountain range in the crest of which is a step; the land between the range and the coast appears low.

Kūh-e Bang (29°46′N 50°22′E) stands about 2 miles inland and 41 miles NNW of Ra's osh Shaţţ; its seaward face is precipitous and, from S, it appears as a remarkable bluff. The range, of which Kūh-e Bang is part, extends parallel with the coast for about 12 miles.

2 **Major light:**

Jazīreh-ye Khārk South Light (aluminium framework tower) (29°12′·9N 50°19′·3E); the light is obscured from N bearing between 151°–160°.

Other aid to navigation

6.111

1 **Racon:**

Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 6.75)

6.112

1 From a position SW of Būshehr (28°58′N 50°50′E) the track leads NW, passing:

SW of Ra's osh Shaţţ (29°06′·2N 50°41′·5E), a narrow strip of sand, barely above-water, E of which is swamp extending for many miles E, thence:

SW of Ra's osh Shaţţ Light-buoy (W cardinal) (29°07′·1N 50°38′·3E) moored about 1 mile offshore WNW of Ra's osh Shaţţ, thence:

2 SW of the light buoy (isolated danger) (29°10′·4N 50°30′·0E) moored close N of a dangerous wreck, thence:

SW of the dangerous wreck (position approximate) (29°09′·1N 50°19′·0E) lying 3¼ miles S of the S end of Jazīreh-ye Khārk (6.122), thence:

SW of the dangerous wrecks (position approximate) (29°10′·46 50°14′·8E) and the numerous production platforms (lit) that lie off the SW corner of Jazīreh-ye Khārk within the Dorood (Darius) Oilfield; note the well-head 6¾ miles WSW within the prohibited anchorage area. Thence:

3 NE of Aboozar (Ardeshir) Oilfield (29°18′N 49°30′E), situated between the Nowrouz (9.12) and Soroosh (2.28) Oilfields, thence:

NE of the detached shoal patch (reported 1961) (29°22′·4N 49°37′·4E) with a least depth of 18·3 m, thence:

NE of the detached shoal patch (29°30′·8N 49°33′·3E) with a least depth of 16·9 m; further reported shoals lie S and W. Thence:

4 SW of the dangerous wrecks (position approximate) (29°35′·6N 49°35′·6E) which lie 1½ miles SSE of Khowr-e Mūsá Light-float; and the stranded wrecks E. Thence:

Through to a position SW of Khowr-e Mūsá Light-float (29°37′·1N 49°34′·7E).

(Directions continue for Bandar Imam Khomeynī are given at 9.15)

Barkan Oil Terminal

General information

6.113

1 **Position and function.** Barkan (Bahrgan) Oil Terminal (29°45′N 50°10′E) is an open roadstead in the NE part of Persian Gulf, about 30 miles N of Jazīreh-ye Khārk (6.122). The terminal has two deep water mooring berths for crude oil exports.

Topography. Kūh-e Bang (6.110) stands about 3 miles inland, E of the terminal; Emam Hasan (29°50′N 50°16′E) is a small village near some trees which has a remarkable mosque; Khowr-e ‘Abd is a small inlet entered about 2 miles NW of the village. The land bordering the coast from this vicinity to Ra’s-e Tanb (29°57′N 50°09′E) is swampy for some miles inland; the point is low and sandy, from it extends a drying sandbank forming the E entrance point to Dōhat Deylam (6.121). Khowr-e Leylateyn, a small inlet, is entered close NW of the point.

2 **Port limits** extend WSW from the shore and are under the control of Barkan Oil Terminal.

Approach and entry. From a position NW of Jazīreh-ye Khārk (29°14′N 50°19′E) the terminal is approached from SW.

Port Authority. Iranian Offshore Oil Co, 339 Shahid Beheshti Avenue, Tehran 15–116, Iran.

Limiting conditions

6.114

1 **Controlling depth.** A minimum under-keel clearance of 1 m must be maintained at both berths.

Deepest berth. SBM Berth No 2 is moored in a depth of 24 m.

Tidal levels. Mean spring range at Bandar-e Deylam (6.121) about 1·9 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Volume 3.*

2 **Density of water** is 1·030 g/cm^3.

Maximum size of vessel handled. The terminal can handle vessels up to 250 000 dwt.

Local weather. During periods of heavy weather vessels may be instructed to vacate the berth.

Arrival information

6.115

1 **Port operations.** The port operates day and night, but berthing is undertaken in daylight subject to prevailing weather conditions; at No 2 Berth vessels are normally secured using two lines from the buoy and two ships lines.

Notice of ETA required. Send ETA 96 and 48 hours and contact on VHF 4 hours, prior to arrival; see 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

2 **Outer anchorages.** Anchorage may be obtained 2 miles SW of No 2 SBM by vessels waiting for a berthing master.

Prohibited anchorage. It is prohibited to anchor within port limits.

Submarine pipelines connect Barkan loading berths to the shore facilities; pipelines also extend WSW from the shore to connect the terminal with the Nowrouz Oilfield (29°30′N 49°25′E) (9.12), and the Soroosh Oilfield and Terminal (29°01′N 49°27′E) (2.28). A pipeline also extends W from the coast, 2 miles NNW to the Bahrgan Sar Oilfield (29°57′N 49°40′E).

3 **Pilotage** is compulsory; berthing master boards 2 miles S of No 2 Berth. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Restricted area. A restricted area in which anchoring is prohibited surrounds the terminal; it should not be entered without permission from the port authorities.

Harbour

6.116

1 **General layout.** The terminal has two berths; Berth 1 (the old berth) consists of five mooring buoys; Berth 2 is a single SBM. A barge jetty extends WSW from the coast a short distance NW of the shore facilities.

Landmark:

Two flares (29°49′·9N 50°15′·8E) burn continuously in the vicinity of the shore facilities.

Approach and entry

6.117

1 The terminal is approached from SW, passing NW of Jazīreh-ye Khārk and clear of the detached shoal (29°36′·9N 49°57′·6E) with a least depth of 12 m; a shoal, with a least depth of 18·6 m, lies 6½ miles NW.

Useful marks:

An offshore oil platform (29°52′·1N 50°07′·2E) is situated N of the terminal near the submarine pipeline connecting the shore with Bahrgan Sar Oilfield (6.121).

2 A small tomb (29°44′·4N 50°20′·3E) surmounts one of the coastal hillocks, about 15 m high, 2 miles WSW of Kūh-e Bang (6.110).

Berths

6.118

1 Berth 1 has six mooring buoys laid, in depths of about 15·5 m, 4½ miles SW of the terminal shore facilities; it can handle tankers up to 45 000 dwt. Berth 2 consists of a SBM in a depth of about 24 m, 7½ miles SW of the terminal shore facilities; it can handle tankers up to 250 000 dwt.

Port services

6.119

1 **Repairs:** No repair facilities.

Other facilities: Oil company doctor may be available, but no hospital; two cranes on barge jetty.

Supplies: No fresh water, bunkers or stores available.

Harbour regulations. The terminal is an open roadstead; main engines must not be shut down for repairs under any circumstances.

Anchorages and harbours

Chart 11

Gānāveh

6.120

1 **Description.** Gānāveh (29°34′N 50°31′E) is the name of a number of villages situated among trees and palms on the NW side of Khowr Khalīl, a tidal inlet at the mouth of a river. Drying sands extend over 5 cables W from the coast

S of its entrance; beacons lead across a drying bar to the channel, marked by stakes; a tide gauge stands about 3½ cables SW of the outer beacon. An oil company operating base with a jetty, allowing sheltered landing at all states of the tide, and a quay are situated on the S side of Khowr Khalīl; a radio mast, 46 m high, stands near the quay. The conspicuous spire and tomb of Shāh Soleymān stands about 1¾ miles N of the entrance Khowr Khalīl; from Sabz Pūshān (29°38′·2N 50°27′·4E), 4 miles NW of the tomb, the land rises steeply to hillocks between 12 and 15 m high.

2 The coast between Gānāveh and Ra's osh Shaţţ, 28 miles SSE, is low and sandy; there are several inlets whose entrances are shallow, but have greater depths within.

Approach. Gānāveh is approached from the SSW to the vicinity of the light-buoy (white can) (29°31′·8N 50°29′·5E), moored about 2 miles SSW of the entrance to Khowr Khalīl. Two beacons and a notice board (29°34′·2N 50°30′·4E) stand on the W side of Gānāveh, the beacons in line (about 024°) lead close NNW of the light-buoy, and close SSE of a buoy (conical) moored about 7 cables W of the tide gauge. Gānāveh Light (aluminium framework tower, 16 m in height) (29°35′·3N 50°29′·8E) is exhibited from the shore close NW of the village; the red sector indicates the direction of the submarine pipelines laid SSW between the mainland and the islands of Jazīreh-ye Khārk and Jazīreh-ye Khārkū.

3 **Useful mark.** Jazīreh-ye Khārkū Light (aluminium framework tower, 16 m in height) (29°20′·5N 50°21′·4E) exhibited from the N end of Jazīreh-ye Khārkū.

Prohibited anchorage area encloses the submarine pipelines extending SSW from Gānāveh; four large, unlit mooring buoys (positions approximate) are laid within this area.

Landing at low water on the beach near Gānāveh is difficult; several ridges of dry sand, with depths of about 0·6 m, must be crossed to reach the beach.

Chart 2884

Bandar-e Deylam

6.121

1 **Description.** Bandar-e Deylam (30°04′N 50°09′E) is a small town situated on the E side of Dōhat Deylam about 7 miles N of Ra's-e Tanb. A prominent square fort, surrounded by houses, stands NNE of the village and appears, when first sighted from seaward, as an island. A radio mast, 91 m high, stands close to the coast about 2 miles SSW of the fort. The coast in the vicinity of Bandar-e Deylam is a strip of rocky land between 3 and 5 m high; drying mud flats extend offshore within which there is a small drying creek used by local craft. A tidal gauge stands about 1 mile offshore, WNW of the village.

2 Dōhat Deylam is the large bay entered between Ra's-e Tanb (29°57′N 50°09′E) and Ra's-e Barkan (9.6), 30 miles W; its shores are low, especially in the vicinity of Ra's-e Barkan where mud flats extend for some distance S and E; the flats are too soft for landing. Bahrgan Sar Oilfield (29°57′N 49°40′E) and Hendījān Oilfield, 5 miles NE, are situated on the W side of the entrance to the bay enclosed by a common restricted area; a flare burns in the middle of this area about 7 miles ESE of Ra's-e Barkan. A stranded wreck, marked by a light-buoy (E cardinal), lies in the SW corner of the restricted area.

3 **Approach.** Bandar-e Deylam may be approached from SW to the vicinity of the light-buoy (conical) (30°02′·6N 50°05′·6E), moored about 3 miles WSW of the village.

Useful marks:

Kūh-e Bīkas (29°58′N 50°17′E), a small table-topped hill, 57 m high, stands about 6 miles inland, E of Ra's-e Tanb; the hill is light in colour with almost vertical sides. Several forts and groves of date palms are on the plain N of the hill.

An offshore oil platform (30°08′N 50°02′) is situated on the E side of Dōhat Deylam, 4¼ miles SW of the village of Shāh Abū ol Shāh within which stand a large white-domed tomb and a conspicuous spire.

4 **Anchorage** may be obtained in depths of about 5 m, 3½ miles W of Bandar-e Deylam; the anchorage is sheltered from the *shamāl* and the *kaus* does not raise the usual sea and swell even when it blows with strength.

Landing is difficult in this area even at HW; the bottom for about 3 cables offshore is hard sand.

JAZĪREH-YE KHĀRK

GENERAL INFORMATION

Chart 11 plan of Jazīreh-ye Khārk to Ganāveh

Area covered

6.122

1 This section describes the island of Jazīreh-ye Khārk (Kharg Island) (29°14′N 50°19′E) and its facilities which include the Main Oil Terminal (6.128), Dorood Oil Loading Terminal (6.135), KHEMCO Terminal (6.141), and Āzarpād Sea Island Terminal (6.152); also included is the smaller island of Jazīreh-ye Khārkū, 2 miles NNE.

It is arranged as follows:

East Side of Jazīreh-ye Khārk (6.128).
West Side of Jazīreh-ye Khārk (6.152).
Jazīreh-ye Khārkū (6.159).

Function

6.123

1 Jazīreh-ye Khārk provides extensive oil loading facilities and is the principal centre for the export of Iranian crude oil.

Topography

6.124

1 Jazīreh-ye Khārk, 4 miles in length, lies about 16 miles off the Iranian coast, on its E side the island is low and cultivated, but rises to a plateau in the W with table-topped hills extending N and S; its summit is in its central N part. The hills at the S end of the island terminate in precipitous bluffs on which there are detached table-topped hummocks. Towards their NW extremity these hills decrease in elevation and terminate in cliffs from 6 to 9 m high; near the middle of the N end of the island is a wedge-shaped

hill. The W coast consists of several rocky points between which lie sandy beaches; hills on the W side end abruptly in cliffs; the E coast is sandy. The whole island is fringed by a steep-to reef extending in places up to about 4 cables offshore.

Hazard

6.125

1 Flares on the island can be seen from some distance and tend to obscure the various navigation lights exhibited from the island.

Restricted areas

6.126

1 Restricted areas, in which anchorage is prohibited, enclose the pipelines leading to the Aboozar (Ardeshir) Oilfield (29°18′N 49°30′E) and Feridoon Oilfield (28°36′N 49°40′E), and the entire Dorood Oilfield (29°11′N 50°15′E) off the SW corner of Jazīreh-ye Khārk; a prohibited anchorage area encloses the pipelines extending NNE from Jazīreh-ye Khārkū to the mainland which also includes the whole of the island.

Mooring buoys

6.127

1 Large unlit mooring buoys (positions approximate) are laid within the prohibited anchorage area NNE of Jazīreh-ye Khārkū.

EAST SIDE OF JAZĪREH-YE KHĀRK

Main Oil Loading Terminal

Chart 11 plan of Jazīreh-ye Khārk

General information

6.128

1 **Position and function.** The Main Oil Loading Terminal (29°14′N 50°20′E) is situated about 1 mile N of the SE corner of Jazīreh-ye Khārk; the terminal is one of the two main crude oil loading facilities on the island.

Topography. See 6.124.

Port limits which extend E from Jazīreh-ye Khārk are under the control of the harbour authority; anchoring within the port limits is prohibited.

2 **Approach.** The pilot boarding position off the E side of the island is approached from the S, passing E of Dorood Oil Terminal (6.135).

Traffic. In 2004, all the terminals on Jazīreh-ye Khārk were used by 727 vessels with a total dwt of 157 080 802 tonnes.

Port Authority. National Iranian Oil Co., Talegani Avenue, PO Box 15934, Tehran, Iran.

Limiting conditions

6.129

1 **Deepest and longest berth.** Berths 1, 3 and 5 have a combined overall length of about 1150 m; alongside depths of up to 21·3 m. See 6.133.

Tidal levels. Mean spring range about 1·4 m; mean neap range about 0·2 m. See *Admiralty Tide Tables Volume 3.*

Density of water. The density of the water is 1·028 g/cm^3.

2 **Maximum size of vessel handled.** Berths 1, 3 and 5 can all handle vessels of up to 250 000 dwt; see 6.133.

Arrival information

6.130

1 **Port operations.** The facility operates day and night.

Notice of ETA required. ETA should be sent 72, 48, 36 and 24 hours prior to arrival. See 6.3 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained in Area C centred on about 29′12′·2N 50°25′·5E off the SE corner of Jazīreh-ye Khārk; the anchorage is for use by vessels waiting for a berth at the Main Oil Terminal; see 6.147 and 6.154.

2 **Submarine pipelines.** Numerous submarine pipelines are laid in the vicinity of Jazīreh-ye Khārk; see caution Chart 11.

Pilotage is compulsory for all vessels and is available day and night. The pilot/berthing master boards for both the Main Oil Terminal and Āzarpād Sea Island Terminal (6.152) about 1¼ miles E of the Main Oil Terminal jetty. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

6.131

1 **General layout.** The Main Oil Loading Terminal consists of T-headed steel piled jetty of 1840 m overall length and maximum width of 37 m; the jetty is connected to the shore by a, 1100 m long, part piled trestle pier and part rock filled causeway. Lights (sectored) are exhibited from the pier connecting the terminal with the shore; the sectors indicate the N and S approach to the inner berths of the jetty.

2 **Tidal streams** in the vicinity of Jazīreh-ye Khārk and Jazīreh-ye Khārkū set NW with the in-going stream, and SE with the out-going with rates, at times, in excess of 2 kn. Off the Main Oil Loading Terminal the in-going stream sets N, and the out-going S, at rates of up to ½ kn. A tidal race, of great strength, occurs with the out-going stream over the spit which extends E from the NE extremity of the island; a light-buoy (E cardinal) is moored off its E end.

3 **Local weather.** The prevailing winds are NW, making the loading berths partially sheltered, but winds from the SE may make the berths on the Main Oil Loading Terminal untenable; waves of 2 m to 3 m in height are not unusual.

Landmarks:

A radio mast (red and white, 155 m high) (29°13′·3N 50°19′·2E) stands about 6 cables W of IPAC Harbour (6.151).

A conspicuous chimney (29°13′·0N 50°19′·3E) stands S from the radio mast.

4 **Major light:**

Jazīreh-ye Khārk S Light (29°12′·9N 50°19′·3E) (6.110).

Directions for entering harbour

6.132

1 From a position SE of Jazīreh-ye Khārk the approach leads N, passing:

E of a dangerous wreck (position approximate) (29°09′·1N 50°19′·0E) and the Dorood Oilfield, thence:

W of a dangerous wreck (position approximate) (29°10′·4N 50°25′·3E), thence:

2 E of a light-buoy (pillar, yellow and black) (29°11′·3N 50°20′·4E); an unlit production platform, 1 mile NW, stands about 6 cables offshore on the shoal water extending SE from Jazīreh-ye Khārk, a dangerous wreck lies close NE. Thence:

E of Dorood Oil Loading Terminal (29°12′·7N 50°20′·7E) (6.135) and through to the anchorages or pilot boarding position (6.130).

If approaching from W or N keep W of the limits of Dorood Oilfield; then pass S and E of the island to the anchorage.

Berths

6.133

1 The terminal has ten berths with alongside depths of between 17·4 m and 21·3 m; Berths 1, 2, 4 and 8 are non-operational. The port authorities should be contacted for the latest information.

Port services

6.134

1 **Repairs:** No repair facilities; deratting exemption certificates issued.

Other facilities: Limited medical facilities; no oily waste reception facilities; no garbage reception facilities.

Supplies: Fuel oil and diesel available (bunkers may be delayed as priority is given to loading); no fresh water available; limited quantities of stores (5 days notice).

2 **Communications:** Jazīreh-ye Khārk Airport is situated at the NE end of the island.

Dorood Oil Terminal

General information

6.135

1 **Position and function.** Dorood (Darius) Oil Terminal (29°13′N 50°21′E) an offshore loading facility is situated about 9 cables ESE of the SE corner of Jazīreh-ye Khārk.

Port Authority. National Iranian Oil Co, PO Box 1863, Central Bldg Cor Hafez Avenue, Talegani Avenue, Tehran, Iran.

See also 6.128.

Limiting conditions

6.136

1 **Controlling depth.** A depth of 18·9 m lies in the SSE approach to the terminal; a depth of 19·5 m lies close NNW of the berth.

Maximum size of vessel handled. The terminal can handle vessels up to 160 000 dwt.

See also 6.129.

Arrival information

6.137

1 **Port operations.** The port operates day and night; anchors used in berthing.

Pilotage. The pilot usually boards 2 miles seaward of berth; see 6.130 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Directions for entering harbour

6.138

1 See 6.132.

Berth

6.139

1 One berth of five mooring buoys and two marker buoys laid at the seaward end of the submarine pipeline connecting the berth with the shore.

Port services

6.140

1 See 6.134.

KHEMCO Terminal

General information

6.141

1 **Position and function.** KHEMCO Terminal (29°13′N 50°20′E) extends 600 m ESE from the SE corner of Jazīreh-ye Khārk; the terminal is a LPG and sulphur loading facility.

Port Authority. The terminal is operated by the Kharg Chemical Company.

See 6.128.

Limiting conditions

6.142

1 **Deepest and longest berth.** The berth is about 360 m in length with alongside depth of 12·8 m.

See 6.129.

Arrival information

6.143

1 **Port operations.** The terminal handles both LPG, and bulk sulphur loaded by conveyor; vessels berth either side to depending on the tidal stream, occasionally the use of an anchor is necessary; ships are warped for positioning under the conveyor.

Tugs are available.

See Arrival information (6.130) and *Admiralty List of Radio Signals Volume 6 (3).*

Directions for entering harbour

6.144

1 See 6.132.

Berth

6.145

1 The terminal, which handles one vessel at a time, consists of a central dolphin, four smaller dolphins and two mooring dolphins extending NNE/SSW, connected to the shore, 600 m WNW, by a combined trestle pier and causeway. A second causeway lies parallel, close NNE; both are connected at their outer ends by a pier. A boat pier extends SSW from the outer end of the S causeway.

Local weather. Strong winds from SE in winter make the berth untenable.

Port services

6.146

1 See 6.134.

Anchorages and harbours

6.147

1 **Dangerous goods anchorage.** Anchorage may be obtained in Area B centred on about 29°09′·6N 50°25′·0E off the SSE corner of Jazīreh-ye Khārk; the anchorage is for use by vessels carrying dangerous goods.

Ship to ship transfer anchorage. Anchorage may be obtained in Area D centred on about 29°14′·5N 50°24′·1E off the E side of Jazīreh-ye Khārk; the anchorage is for use by vessels engaged in transfer operations.

2 **Working anchorage.** Anchorage, for use by cargo vessels discharging into lighters, lies about 4 cables offshore and 5 cables SE of the NE extremity of the island clear of the port limits in a depth of 12·8 m, good holding. The anchorage affords good shelter when the outer anchorage off Būshehr (6.89) is untenable owing to bad weather. A dolphin, connected to the shore by submarine pipeline, lies close SE of the NE point of the island.

See 6.130.

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Fisherman's Harbour

6.148

1 **Description.** Fisherman's Harbour (29°16′·0N 50°19′·6E), situated on the N coast of Jazīreh-ye Khārk, close WNW of the NE extremity of the island, is entered from the NE between breakwaters from which lights (lateral) are exhibited.

Useful mark:

A radio mast (red and white bands, 94 m high; red obstruction lights) (29°15′·7N 50°20′·0E) stands near the airport at the NE corner of the island.

Naval Harbour

6.149

1 **Description.** A small naval boat harbour (29°14′·8N 50°19′·8E), protected from S and E by an elbow shaped breakwater, is situated nearly 1 mile SSW of the NE extremity of Jazīreh-ye Khārk. A light-buoy (red conical) is moored 3 cables ENE of the breakwater head at the outer end of a buoyed entrance channel which leads through the reef. North Beacon (ruin) stands in the S part of an area of shoal water, S of the channel.

OSCI Harbour

6.150

1 **Description.** OSCI (Oil Services Company of Iran) harbour (29°14′·0N 50°19′·8E), protected by a breakwater, is situated off the N side of the causeway connecting the Main Oil Loading jetty to the shore. A light-beacon, 150 m E of the head of the breakwater, stands in the break in the coastal reef leading to the entrance; a second light-beacon stands on the edge of the reef a similar distance N. Other beacons, some exhibiting lights, indicate the limits of the channel.

IPAC Harbour

6.151

1 **Description.** IPAC (Iran Pan American Oil Company) harbour (29°13′·3N 50°19′·9E), protected from S and E by an elbow shaped breakwater, is situated near the SE corner of Jazīreh-ye Khārk. South Light-beacon stands 2 cables NE of the breakwater head on the edge of the shoal water E of the coastal reef; a second light-beacon stands about 100 m E of the breakwater in the SE approach to the harbour. Other beacons, some exhibiting lights, indicate the limits of the channel.

WEST SIDE OF JAZĪREH-YE KHĀRK

Āzarpād Sea Island Terminal

Chart 11 plan of Jazīreh-ye Khārk

General information

6.152

1 **Position and function.** Āzarpād Sea Island Terminal (29°14′N 50°17′E), situated on the W side of Jazīreh-ye Khārk about 1¾ miles NW of the SW corner of the island; the terminal is an offshore crude oil loading facility.

Port limits extend W from Jazīreh-ye Khārk and are under the control of Āzarpād Sea Island Terminal.

Port Authority. Oil Services Co of Iran, PO Box 1065, Tehran, Iran.

See 6.128.

Limiting conditions

6.153

1 **Deepest and longest berth.** Berth 11 has an alongside depth of 32 m.

Maximum size of vessel handled. The terminal can handle vessels up to 500 000 dwt.

Local weather and sea state. The berths are exposed; berthing is subject to prevailing weather conditions.

See 6.129.

Arrival information

6.154

1 **Port operations.** Vessels of less than 150 000 dwt are not normally accepted at the terminal.

Notice of ETA required. See 6.130 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained in Area A centred on about 29′09′·3N 50°21′·2E off the SSE part of Jazīreh-ye Khārk; the anchorage is for use by vessels waiting for a terminal berth; see 6.130.

2 **Pilotage.** See 6.130 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

6.155

1 **General layout.** The terminal, with an overall length of about 1120 m, consists of four deep water dolphin berths on a detached offshore structure 6 cables W of Jazīreh-ye Khārk; lights are exhibited from the S end and the centre of the terminal.

Hazard. The approach to the terminal leads through the NE part of Dorood Oilfield; numerous oil production platforms are situated in this area.

2 **Landmarks:**

Mīr Mohammed Tomb (29°15′·2N 50°18′·7E), a conspicuous conical tower, 50 m high, surmounted by a small dome.

A conspicuous flare tower (red and white, 133 m high; red obstruction lights) (29°14′·8N 50°18′·3E); a second flare tower stands SSE; see 6.125.

A radio mast (red obstruction light, 112 m high) (29°14′·2N 50°18′·6E) stands close NE of the tank farm E of Āzarpād Sea Island Terminal.

Directions for entering harbour

6.156

1 See 6.132.

Berths

6.157

1 The terminal has four alongside berths, Berths 11, 12, and 15 have alongside depths of between 27·4 m and 32 m; Berth 14 is non-operational. The port authorities should be contacted for the latest information.

Port services

6.158

1 See 6.134.

JAZĪREH-YE KHĀRKŪ

Chart 11 Jazīreh-ye Khārk to Ganāveh

General information

6.159

1 **Description.** Jazīreh-ye Khārkū (29°19′·3N 50°20′·7E), 2 miles NNE of Jazīreh-ye Khārk, is a low island composed of white sand with a thin covering of coarse grass; except at its N end the island is fringed by an

extensive flat reef which, for the most part, is steep-to. Jazīreh-ye Khārkū Light (6.120) is exhibited from the N end of the island. A stranded wreck (position approximate) lies about 5 cables E of the light and a dangerous obstruction lies about 1¼ miles E of the S end of the island; a further stranded wreck lies about 4 cables SSE of the obstruction.

2 Approaching the island at night can be dangerous as it cannot be seen until close-to.

Side channel. Depths in the channel separating the island from Jazīreh-ye Khārk are irregular; the deepest water at its W end lies on its S side, but at its E end, indicated by a light-buoy (red conical), the deepest water is closer to its centre. A light-buoy (white can) (29°16′·8N 50°16′·6E) is moored off the NW corner of Jazīreh-ye Khārk on the S side of the W approaches to the channel.

3 **Tidal streams** within the channel set WNW with the in-going stream and ESE with the out-going, at rates up to 2½ kn.

Local knowledge. A depth of 9·7 m can be carried through the channel, but passage is not recommended without local knowledge.

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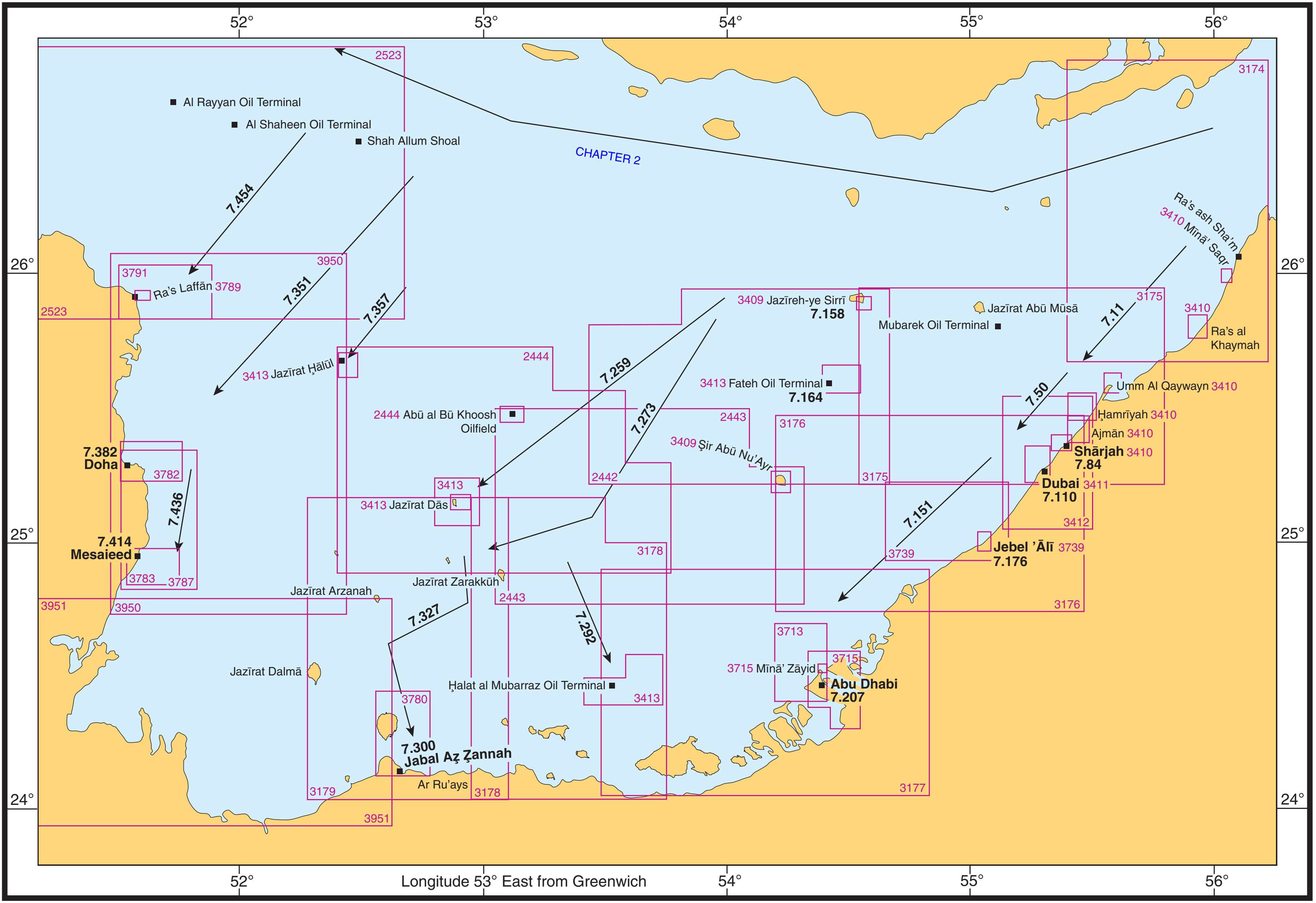
Chapter 7 - Persian Gulf, southern side - Ra’s ash Sha’m to Ra’s Rakan



CHAPTER 7

PERSIAN GULF SOUTHERN SIDE — RA'S ASH SHA'M TO RA'S RAKAN

GENERAL INFORMATION

Chart 2837

Scope of the chapter

7.1

1 This chapter describes the coastal routes along the SE and S coasts of Persian Gulf from Ra's ash Sha'm (26°04′N 56°05′E) to Ra's Rakan (26°11′N 51°13′E).

The chapter is divided into the following sections:

Ra's ash Sha'm to Abu Dhabi (7.9).
Abu Dhabi to Jabal Az̧ Z̧annah (7.256).
Jabal Az̧ Z̧annah to Ra's Rakan (7.345).

2 The major ports described are:

Shārjah (25°22′N 55°22′E) (7.84).
Dubai (25°16′N 55°18′E) (7.110).
Jebel Ali (25°00′N 55°03′E) (7.176).
Abu Dhabi (24°29′N 54°22′E) (7.207).
Jabal Az̧ Z̧annah (24°11′N 52°38′E) and Ar Ru'ays (24°08′N 52°44′E) (7.300).
Doha (25°17′N 51°32′E) (7.382).
Mesaieed (25°00′N 51°33′E) (7.414).
Ra's Laffān (25°55′N 51°35′E) (7.467).

3 And the ports of:

Mīnā' Saqr (25°59′N 56°03′E) (7.19).
Ra's al Khaymah (25°48′N 55°57′E) (7.31).
Umm al Qaywayn (25°35′N 55°34′E) (7.37).
Ḩamrīyah Freezone Port (25°28′N 55°29′E) (7.62).
'Ajmān (25°26′N 55°27′E) (7.69).
Khawr Dubai (25°16′N 55°18′E) (7.145).

4 Oil loading terminals described are:

Ḩulaylah Oil Terminal (25°59′N 55°56′E) (7.26).
Shārjah Offshore Terminal (25°35′N 55°24′E) (7.55).
Mubarek Oil Terminal (25°49′N 55°11′E) (7.76).
Jazīreh-ye Sirrī Oil Terminal (25°54′N 54°33′E) (7.158).
Fateh Oil Terminals (25°35′N 54°26′E) (7.164).
Jazīrat Dās Terminals (25°09′N 52°54′E) (7.263).

5 Jazīrat Zarakkūh Oil Terminal (25°01′N 52°59′E) (7.284).

Ḩālat al Mubarraz Oil Terminal (24°26′N 53°32′E) (7.292).
Jazīrat Dalmā Offshore Oil Berth (24°30′N 52°18′E) (7.344).
Jazīrat Ḩālūl Oil Terminal (25°40′N 52°25′E) (7.357).
Al Shaheen Oil Terminal (26°35′N 51°59′E) (7.462).
Al Rayyan Oil Terminal (26°39′N 51°34′E) (7.463).

Topography

7.2

1 The coast of the United Arab Emirates in Persian Gulf extends from Ra's ash Sha'm (26°04′N 56°05′E), W of Ru'ūs al Jibā (3.268), to Khawr al 'Udayd (24°37′N 51°23′E) at the S end of Al Qatar peninsula; from Ra's ash Sha'm to Abu Dhabi, 130 miles SW, it is low and sandy, in clear weather the mountains of Ru'ūs al Jibāl are visible until past Dubai (25°16′N 55°17′E).

2 The E coast of Qatar extends N from Khawr al 'Udayd to Ra's Rakan (26°11′N 51°13′E); between Khawr al 'Udayd and Mesaieed, 20 miles NNE, the coast is low and liable to flood at high water; from there, as far as Doha, 20 miles N, the land becomes a stony desert with sparse vegetation. North of Doha (25°17′N 51°32′E) it is chiefly desert with a few hillocks; farther N it becomes very low with salt marshes and is once again liable to flood.

Development

7.3

1 Work is in progress on five offshore projects between Shārjah (25°22′N 55°22′E) and Jebel Ali, 30 miles SW. Palm Island Three, Palm Deira, extends up to 10 miles from the shore between Mīnā' Khalid (Shārjah) and Mīnā' Rashid, 7 miles SW; Dubai Maritime City is being built on reclaimed land between Mīnā' Rashid (25°16′N 55°17′E) and Dubai Dry Dock; World Project (25°14′N 55°10′E) WSW of Dubai Dry Dock; Palm Island One, Palm Jumeirah, (25°07′N 55°08′E) close N of Mīnā' Seyaha and similarly Palm Island Two, Palm Jebel Ali, (25°02′N 54°59′E) close W of Jebel Ali. To maintain safety and assist craft working on these developments all are surrounded by exclusion zones into which entry is prohibited. Appropriate lights are exhibited and light-buoys mark all these projects; all vessels should keep well clear of these areas. For further information contact the local authorities and see the latest *Admiralty Notices to Mariners.*

Great Pearl Bank

7.4

1 The Great Pearl Bank fills most of the large bight in the S part of Persian Gulf. Its E limits lie NW of Shārjah (25°22′N 55°22′E); its N boundary lies in depths of between 30 and 40 m and trends generally W to Jazīrat Ḩālūl (25°41′N 52°24′E), then NW to a position about 35 miles NNE of Ra's Rakan (26°11′N 51°13′E). Most of the shallow reefs on which lie the pearl banks are S and SW of this line; depths are irregular, in many places they change suddenly by 4 m to 6 m.

2 Extensive shallow reefs, with channels of open water inside them, lie within 45 miles of the coast; the bottom is stony or broken coral, but the reefs show up well except on cloudy days, or when the sun is ahead. Many islands are situated on the Great Pearl Bank, some are high, most have low projecting sandy points at their SE ends; nearly all are barren. Some islands have been developed for habitation by oil companies, otherwise, except for Jazīrat Dalmā (24°30′N 52°18′E) (7.344), none have permanent communities.

3 Navigation within the bank after dark is not advised unless with the aid of a pilot, or on passage along established shipping routes. Within the 30 m contour particular caution is necessary as parts of the bank have not been fully surveyed and soundings give little or no warning of a danger; a good lookout should be maintained.

Marine exploitation

7.5

1 Within this area are situated a number of offshore oil and gasfields in which stand numerous production platforms and installations which include tanker moorings and storage tankers.

Unauthorised navigation is prohibited with 500 m of all structures including storage tankers which can swing about their moorings. Tankers manoeuvring in the vicinity of platforms and moorings should be given a wide berth. Uncharted structures, lit and unlit, and submerged installations, some marked by buoys, may also exist. Many of the oilfields and terminals also lie within submarine power cable areas. Mariners are advised to exercise caution. Production platforms generally exhibit Mo (U) lights and sound audible fog signals.

Anchorages

7.6

1 The E part of the coast is open from SW through NW to NE, the bottom in many places is hard and consequently the holding ground is poor. On the approach of a winter *shamāl*, which in this area blows from NW or even W, vessels should be prepared to depart; in any event vessels should anchor farther offshore in winter than in summer.

Natural conditions

7.7

1 **Tidal streams** in the area generally set SW with the in-going stream and NE with the out-going at rates of about 1 kn. Over the Great Pearl Bank there are, in places, heavy tidal overfalls, especially about 35 miles NW of Şīr Abū Nu‘ayr (25°14′N 54°13′E); streams over the bank are strong and uncertain.

Currents. Throughout the year currents in Persian Gulf have a predominantly anti-clockwise circulation, in the area described there are sometimes, especially in January, strong currents in the SE setting between NE and E with rates of between ½ kn to ¾ kn; similarly between April and June with rates of between ½ kn to 1¾ kn.

2 **Refraction.** This coast is remarkable for the high degree of refraction or mirage frequently experienced, especially in the early morning. Features become greatly distorted, villages sometimes appear as clumps of rounded trees and uncharted hillocks or dunes appear as hills of considerable height.

Weather

7.8

1 The prevailing wind during the summer months is the *shamāl*, but between October and March, it is often interrupted by the *kaus*, the *nashi* or the *suhaili*. From June to September the *shamāl* can reach considerable force, lasting for several days at a time. It seldom varies from NW, blowing over the whole area, producing rough seas and stirring up dust clouds on shore which reduces visibility at sea. Winter storms in the region are generally preceded by S winds and seas which usually veer NW behind the storm. Cold fronts occasionally penetrate the area with winter storms and are accompanied by squalls and seas of variable direction which in turn are followed by a *shamāl*.

RA’S ASH SHA’M TO ABŪ Z̧ABY INCLUDING OFFSHORE OILFIELDS AND TERMINALS

GENERAL INFORMATION

Charts 3174, 3175, 3176, 3177

Area covered

7.9

1 This section describes the coastal passages, anchorages and harbours between Ra’s ash Sha’m (26°04′N 56°05′E) and Abu Dhabi, 65 miles SW; it is arranged as follows:

Ra’s ash Sha’m to Umm al Qaywayn (7.11).
Umm al Qaywayn to Dubai (7.50).
Shārjah (7.84).
Dubai (7.110).
Dubai to Abu Dhabi (7.151).
Jebel Ali (7.176).
Abu Dhabi (7.207).

Topography

7.10

1 Towns and villages along the coast are generally found near the many entrances to the various khawrs, or sea-water creeks, which form large, often interconnected, backwaters in which local craft may obtain shelter.

RA’S ASH SHA’M TO UMM AL QAYWAYN

General information

Charts 2888, 3174, 3175

Route

7.11

1 From a position NW of Ra’s ash Sha’m (26°04′N 56°05′E) (7.22), in the vicinity of the Inchcape Light-buoy (special) (26°10′·1N 55°53′·1E), the track leads SW for 37 miles to a position NW of Umm al Qaywayn (25°35′N 55°34′E).

Topography

7.12

1 See 3.312.

Depths

7.13

1 Between Mīnā’ Saqr (25°59′N 56°03′E) and Umm al Qaywayn, 35 miles SW, numerous sandy shoals lie on the coastal bank within the 10 m contour; their position probably alters under the effect of the *shamāl*. Vessels navigating off this coast should maintain a good distance from shore, and exercise extra caution when in depths of less than 10 m.

Marine farms

7.14

1 Marine farms, floating or fixed, may be encountered, they are generally marked by buoys or beacons which may be lit; the farms and their associated moorings should be avoided; their positions are approximate and more may be established without notice.

Principal marks

7.15

1 **Landmarks:**

Jabal al Hārah (Fine Peak) (26°06′·0N 56°10′·5E) (3.315).
Jabal as Sayḩ (25°58′·8N 56°13′·7E) (3.315).

Other aid to navigation

7.16

1 **Racon:**

Bukha Oilfield Platform (26°15′N 56°03′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 3.317)

7.17

1 From the vicinity of the Inchcape Light-buoy (special) (26°10′·1N 55°53′·1E) the track leads SW, passing:

NW of Mīnā’ Saqr (25°59′N 56°03′E) (7.19), thence:

SE of Saleh Oilfield (26°10′N 55°43′E), connected to the shore SE by oil and gas submarine pipelines; a flare burns from the N platform of the field. See 1.17 and 7.5. Thence:

NW of Hulaylah Oil Terminal (25°59′N 55°56′E) (7.26), thence:

2 SE of a wreck (26°04′N 55°34′E) with a least depth over it of 18·8 m; a light-buoy (N cardinal) is moored close N. VITOL-B production platform, stands about 6¼ miles W. Thence:

SE of a dangerous wreck (position doubtful) (25°58′·1N 55°38′·0E).

7.18

1 The track continues SW, passing:

NW of Jazīrat al Ḩamra’ (25°43′N 55°48′E) (7.49); a light is exhibited from the the outer end of a rock groyne extending N from Ra’s Abū Aḩmad. Thence:

NW of a dangerous wreck (position approximate) (25°42′·8N 55°33′·2E), thence:

2 SE of a wreck (position approximate) (25°50′·1N 55°22′·0E) over which there is a safe clearance depth of 20 m; note the wreck (position approximate), with a safe clearance depth of 30 m, which lies close to track in this vicinity. Thence:

NW of Umm al Qaywayn (25°35′N 55°34′E) (7.37); a light is exhibited from the head of a groyne. Thence:

Useful mark:

Mubarek Oil Terminal (25°49′N 55°11′E) (7.76).

(Directions continue at 7.54)

Mīnā’ Saqr

Charts 3174, 3410 plan of Mīnā’ Saqr

General information

7.19

1 **Position and function.** Mīnā’ Saqr (25°59′N 56°03′E) is situated within the United Arab Emirates on the W coast of Ru’ūs al Jibāl (3.268); the port was built for the export of cement and aggregate from nearby industrial facilities, but is now under development as a container port; bauxite, manufactured products, livestock, oil and gas are also imported.

Topography. The mountains of Ru’ūs al Jibāl dominate the hinterland E of Mīnā’ Saqr; between the port and Ra’s ash Sha’m, 5 miles N, the coast is low and sandy; a plain, about 1 to 1½ miles wide, lies between the coast and the mountains.

2 **Port limits.** The port limits lie within a 3 mile radius of the harbour entrance; Khawr Khuwayr, entered close S is within the port limits.

Approach and entry. The pilot boarding position is approached from NW, the track then leads S passing E of the fairway buoy; the port is entered between breakwaters.

Traffic. In 2004, the port was used by 549 ships with a total of 17 142 696 dwt.

Port Authority. Mīnā’ Saqr Port Authority, PO Box 5130, Ra’s al Khaymah, United Arab Emirates.

Limiting conditions

7.20

1 **Controlling depth.** A depth of 11·9 m lies about 1 cable NE of the S breakwater head; the port area is dredged to 12·2 m; note the 12 m depths WSW of Berth 1 and close NW of Berth 7.

Deepest and longest berth. Quays 1 and 2 are about 600 m in length with alongside depths of 12·2 m; see 7.24.

Tidal levels. Mean spring range about 1·5 m; mean neap range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

2 **Density of water** is 1·023–1·027 g/cm^3.

Maximum size of vessel handled. The port can handle vessels up to 50 000 dwt and 261 m in length on a maximum draught of 11·5 m.

Arrival information

7.21

1 **Notice of ETA required.** Send ETA 72 and 24 hours prior to arrival; vessels should contact the port control at least 2 hours in advance of arrival at the fairway light-buoy. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained in depths of between 20 and 30 m in the triangular shaped area centred about 2 miles NW of the harbour entrance; light-buoys (N and S cardinal) are moored near its centre; the holding is good.

2 **Pilotage** is compulsory for all vessels and available day and night; the pilot boards about 9 cables N of the fairway light-buoy (26°00′·1N 56°02′·3E). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

7.22

1 **General layout.** The harbour consists of three main quays within a basin enclosed by breakwaters; a small boat harbour and a fishing harbour are entered from the SE corner of the basin.

Local weather. Strong winds, usually from NW, may blow at any time with little or no warning.

Landmark:

A mountain (26°03′N 56°06′E), 701 m high, stands about 1 mile SE of Ra’s ash Sha’m (26°04′N 56°05′E); a notch in the mountain makes it a good mark from SW and N.

Directions for entering harbour

7.23

1 **Sector light:**

A sectored light-beacon (white framework tower, red bands; 20 m high) (25°58′·4N 56°02′·9E) stands on the S side of the S breakwater.

From the vicinity of the pilot boarding position the track leads S to a position about 5 cables E of Mīnā’ Saqr Fairway Light-buoy (safe water) (26°00′·1N 56°02′·3E); the track continues S, within the white sector (173½°–177½°) of the sector light, passing E of the S (Main) Breakwater Head from which a light (pillar, 3 m high) is exhibited.

2 The port is entered between the elbow of the S breakwater and the head of the N (Lee) Breakwater from which lights (lateral) are exhibited; both breakwaters are radar conspicuous.

Useful mark:

A prominent flare stack (25°57′·0N 56°03′·0E) stands near the coast, S of the entrance to Khawr Khuwayr; the flare is reported to be visible for some distance offshore.

Berths

7.24

1 Berths 1 to 3 are used for general cargo and are situated on Quay 1; Berth 4 is used for Ro-Ro traffic and is on Quay 1A; Berths 5 to 7 are used for bulk and general cargo and are on Quay 2; Berth 9 on Quay No 3 is for the export of aggregates. Container traffic can be handled at all berths.

The fishing and small boat harbour are both dredged to 4·5 m and are entered from the SE corner of the main basin; Rock Company Jetty lies within the fishing harbour on the E side of a common dividing quay.

Port services

7.25

1 **Repairs.** Limited repair facilities available.

Other facilities. Hospital; mobile cranes; offshore supply services; no oily waste reception facilities; garbage reception facilities.

Supplies. Fresh water available at all berths; fuel oil and diesel available from berths on Quay 1.

Communications. Ra’s al Khaymah International Airport is situated 60 km S of the port.

Ḩulaylah Oil Terminal

Chart 3174

General information

7.26

1 **Position and function.** Ḩulaylah Oil Terminal (25°59′N 55°56′E) lies W of Mīnā’ Saqr (7.19); the terminal is an SBM loading facility connected to the shore and to Saleh Oilfield (7.18) by submarine oil pipelines.

Approach. The immediate approach to the terminal is clear; from the anchorage and pilot boarding position the SBM is approached from W.

Port Authority. Ra’s al Khaymah Gas Commission, PO Box 434, United Arab Emirates.

Limiting conditions

7.27

1 **Controlling depth**. The SBM is moored in a depth of 30·5 m.

Density of water is 1·030 g/cm^3.

Maximum size of vessel handled. The terminal can handle vessels up to 350 000 dwt; maximum length 400 m, beam 55 m, on a maximum draught of 21·5 m; minimum size handled 150 000 dwt.

Arrival information

7.28

1 **Port operations.** A minimum under-keel clearance of 9·2 m must be maintained.

Notice of ETA. Send ETA 72, 48 and 24 hours prior to arrival and inform any change of more than 1 hour; contact terminal on VHF when within range. See *Admiralty List of Radio Signals Volume 6 (3).*

Anchorage may be obtained within the an area of 1 mile diameter 3 miles W of the SBM.

2 **Submarine pipeline.** A submarine gas pipeline connecting Saleh Oilfield to shore lies about 1 mile N of the SBM; see 1.17.

Pilotage is compulsory and undertaken by the mooring master who is instructed by Mīnā’ Saqr Pilots; berthing undertaken by day only, unberthing night and day. Pilot boards in the anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Harbour

7.29

1 **Landmark:**

A prominent flare stack (25°57′·0N 56°03′·0E) (7.23).

Port services

7.30

1 Oily waste reception facilities.

Ra’s al Khaymah

Charts 3174, 3410 plan of Ra’s al Khaymah

General information

7.31

1 **Position and function.** Ra’s al Khaymah (25°48′N 55°57′E) is a town and small port in the United Arab Emirates on the W side of Khawr Ra’s al Khaymah; the town is also the state capital of the state of Ra’s al Khaymah.

Topography. The coastal plain in this vicinity is about 6 miles wide, but increases rapidly SW as the mountains recede from the sea; from N the town appears to be situated near the end of the mountains. The N end of high sand cliffs, about 45 m high, stand about 3½ miles SW of the entrance to the port and offer a guide.

2 **Approach and entry.** The port is approached from the NW and entered from NNW between training walls. See 7.13.

Traffic. In 2004, the port was used by 4 vessels with a total of 95 828 dwt.

Limiting conditions

7.32

1 **Controlling depth.** From the entrance through to Nakheel Basin the channel is dredged to 3 m (1978); see 7.13.

Tidal levels. Mean spring range about 1·3 m; mean neap range about 0·8 m. See *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled. Vessels up to 3·3 m draught, with a maximum length of 46 m, can be handled.

Arrival information

7.33

1 **Pilotage** is compulsory; pilot boards in vicinity of Ra’s al Khaymah Approach Light-buoy (safe water) (25°50′·2N 55°54′·1E). See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained, in a depth of about 10 m, in the vicinity of Ra’s al Khaymah Approach Light-buoy (25°50′·1N 55°54′·1E); the holding is poor and main engines should be kept in a state of readiness.

2 Small vessels may find anchorage 2 miles W of the outer end of the training walls in a depth of about 6 m; the holding ground is reported good. There is not as much sea here during a *shamāl* as might be experienced in other anchorages in the area; however, care is necessary in the approach as there are several shoal patches in this vicinity.

Harbour

7.34

1 **Hazard.** A ferry service operates across the entrance between Fish Quay and New Customs Quay.

Landmarks:

A conspicuous radio tower (obstruction lights, 84 m high) (25°48′·0N 55°57′·4E) stands on the N side of Khawr Ra’s al Khaymah near the power station.

A prominent tower (25°46′·8N 55°55′·7E), 16 m high, stands at the foot of red sand cliffs, near the shore, SW of the town.

2 A conspicuous hotel (25°46′·2N 55°56′·3E), 36 m high, is situated on a sandhill S of the town; a prominent, 37 m high, tower stands about 5 cables ESE.

Berths

7.35

1 New Customs Quay is a short quay on the E side of the S end of the entrance channel; close SE is a longer quay off which are depths of 5 m. Fish Quay lies opposite New Customs Quay on the W side of the channel. Nakheel Basin, which extends about 8 cables E from the S end of the channel, has a quay at its E end; a small jetty lies on its N side near the power station. A channel, spanned by a bridge, leads from the SW corner of Nakheel Basin to an area under development SE of the town.

Port services

7.36

1 **Facilities.** Hospital; cranes on New Customs Quay; lighters; exemption certificates only.

Supplies. No fresh water available; limited quantities of stores and fresh provisions; diesel available at New Customs Quay.

Umm al Qaywayn

Charts 3175, 3410 plan of Umm al Qaywayn

General information

7.37

1 **Position and function.** Umm al Qaywayn (25°35′N 55°35′E) is a peninsula on the NW coast of the United Arab Emirates; the town and the deep-water port of Umm al Qaywayn are of the same name and are situated on the peninsula; the port, also known as Ahmed Bin Rashid Port, is a free trade zone.

2 **Topography.** Umm al Qaywayn peninsula is connected on its SW side to the mainland by a narrow isthmus. Khawr Umm al Qaywayn is an extensive inlet entered between the peninsula and the SW extremity of Jazīrat Sīnīyah which is composed of sandhills covered with grass and scrub; the island is liable to inundation. Within its entrance Khawr Umm al Qaywayn divides into three arms, the E arm connects with Khawr al Bayḑah an extension of the inlet NE; the S arm passes E of Jazīrat al Ghubbah; the W arm, and the entrance area of the inlet, form the port of Umm al Qaywayn. Jazīrat al Ghubbah (25°33′N 55°35′E), a low-lying islet on an extensive drying bank, occupies most of the S part of the inlet; the area has been reclaimed and the island is now connected to the mainland by a bridge.

3 **Approach and entry.** The port is approached from NNW and entered through a 100 m wide channel, marked by light-buoys and light-beacons (lateral), passing E of the protective groyne. A dangerous wreck (position approximate) (25°42′·9N 55°33′·1E) lies 6¼ miles NNW of the outer end of the groyne.

Traffic. In 2004, the port was used by 21 vessels with a total of 122 020 dwt.

Port Authority. Ahmed Bin Rashid and Free Zone Authority, PO Box 279, Umm al Qaywayn, United Arab Emirates.

Limiting conditions

7.38

1 **Controlling depth.** The entrance channel, Deep Water Wharf and the turning basin are all dredged to 10 m (1982); see 7.13.

Tidal levels. Mean spring range about 1·2 m; mean neap range about 0·6 m. See *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled. The port can handle vessels up to 210 m in length on a maximum draught of 9·8 m.

Arrival information

7.39

1 **Notice of ETA required.** Send ETA 72, 48 and 24 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Anchorage may be obtained in an area centred about 1½ miles NNW of the outer end of the groyne, in depths of between 9 and 15 m. Anchorage can also be obtained about 8 cables NW of Burj Mahsum (25°35′N 55°34′E) in depths of about 12 m, the holding in sand and shell is poor; in winter vessels should anchor farther offshore; see 7.6. Landing outside of the inlet, except in fine weather, is difficult.

2 **Submarine pipeline.** A fresh water pipeline is laid across the S end of the entrance channel between the N end of Deep Water Wharf and the S end of Jazīrat Sīnīyah; its landing positions are marked by notice boards (red diamond, white background). Anchoring in the vicinity of the pipeline is prohibited.

Pilotage is compulsory; pilot boards in the outer anchorage area. See *Admiralty List of Radio Signals Volume 6 (3).*

Harbour

7.40

1 **General layout.** The main wharfs are situated on the E and S sides of the peninsula.

Hazard. The in-going tidal stream sets across the fairway close N of the groyne, at times in excess of 2 kn; vessels using the channel should do so with caution.

Landmarks:

Burj Mallāḩ (25°36′·7N 55°37′·4E) is the SW tower of the two conspicuous rectangular towers standing on Jazīrat Sīnīyah (7.37).

2 A square fort with two round towers (25°35′·1N 55°34′·3E) stands near the centre of Umm al Qaywayn; a conspicuous minaret, 22 m high, stands close SW of the fort.

Burj Bakhut (25°35′·2N 55°34′·8E), a tower, conspicuous from N and WNW, stands on the E side of the peninsula.

Burj Mahsum (25°35′·2N 55°33′·9E), a conspicuous tower in the middle of the N part of the isthmus joining the town to the mainland; other towers and radio masts stand in this vicinity.

Directions for entering harbour

7.41

1 From the outer anchorage the track leads SSE, passing (with reference to Umm al Qaywayn Groyne Head Light (25°36′·6N 55°34′·7E)):

Between the light-buoys (lateral) (6½ cables N) marking the seaward end of the entrance channel. Note the two areas of foul ground at the outer end of the channel, they are reported to be no danger to surface navigation, but should be avoided if intending to use anchors. Thence:

ENE of Umm al Qaywayn Groyne Head Light exhibited from close NNW of the outer end of the protective groyne, thence:

2 ENE of the groyne and between the several drying patches (8 cables SSE) lying close off the sides of

the channel; light-beacons (lateral, 5 m high) mark the inner channel. And:

WSW of Muḩammad Bin Mawlá Bank (8 cables SE), thence:

Through to a 500 m diameter turning area, marked by light-beacons (yellow), SSE of Deep Water Wharf.

Berths

7.42

1 Deep Water Wharf fronts the E side of the peninsula and has four numbered berths. Berth 1 has a reported alongside depth of 5·5 m, Berth 2 of 7·5 m, Berth 3 of 9·5 m and Berth 4 of 10 m; lights are exhibited from the ends and centre of the wharf. Town Wharf fronting the S side of the peninsula is approached from the W side of the turning basin, through a buoyed channel, dredged to 4 m (1979); the wharf provides berthing for coasters up to 60 m in length; lights are exhibited from its ends. Ruler's Wharf is approached from Town Wharf through a continuation S of the dredged channel; lights are exhibited from close N.

Port services

7.43

1 **Other facilities.** Hospital; no oily waste reception facilities.

Supplies. Fresh water at Deep Water Wharf (limited quantity only); fuel oil and diesel (barge or road tanker); limited supplies; fresh provisions.

Communications. Dubai International Airport 25 miles distant.

Harbours

Chart 3174

Al Jeeb

7.44

1 **Description.** Al Jeeb Fishing Harbour (26°03′N 56°05′E) is entered from NW; a light is exhibited from the head of the main breakwater.

Ash Sha'm

7.45

1 **Description.** Ash Sha'm Fishing Harbour (26°02′N 56°05′E) is entered from N; a light is exhibited from the head of the main breakwater.

Charts 3174, 3410 plan of Mīnā' Saqr

Ghalīlah

7.46

1 **Description.** Ghalīlah Fishing Harbour (26°00′N 56°04′E), situated within the port limits of Mīnā' Saqr (7.19), is entered from N; a light is exhibited from the head of the main breakwater.

Chart 3174

Ar Rams

7.47

1 **Description.** The town of Ar Rams (25°53′N 56°01′E) lies on the SE side of a lagoon, used by dhows, which is entered from NW between training walls; lights (lateral) are exhibited from its outer ends. Jazīrat Ḩulaylah, once an island, but now connected to the shore forms the seaward side of the N part of the lagoon whose surrounding areas are liable to inundation; towards Ra's al Khaymah (7.31) the seaward side of the lagoon is formed by a long sandy spit; a marine farm lies about 5 miles WNW of the lagoon's entrance. In the vicinity of Ar Rams the coast is swampy; a short distance inland are date groves which extend E and S towards Ra's al Khaymah. See 7.13 and 7.14.

Charts 3174, 3410 plan of Ra's al Khaymah

Ma'rīd

7.48

1 **Description.** Ma'rīd (25°49′N 55°58′E) is a small town and fishing harbour NE of Ra's al Khaymah entered from N between breakwaters.

Chart 3174

Jazīrat al Ḩamra'

7.49

1 **Description.** Jazīrat al Ḩamra' (25°43′N 55°48′E), once an island but now part of the mainland; the town and surrounding area are both known by that name. A protective rock groyne projects 400 m N from Ra's Abū Aḩmad and forms the N extremity of Jazīrat al Ḩamra'; a light (4 m high) is exhibited from its head. It is recommended vessels should keep at least 1½ cables clear of its outer end to avoid any shoaling. The entrance is dredged to 3 m (1980), but within the lagoon depths increase to 5 m; local knowledge is required. See 7.13.

2 Khawr al Bayḑah (25°36′N 55°39′E) is entered about 6 miles SW of Ra's Abū Aḩmad (7.49) between the NE end of of Jazīrat Sīnīyah and the mainland. The inlet connects with Khawr Umm al Qaywayn (7.37), but is only suitable for use by small boats; local knowledge is required.

Development. Reclamation work is in progress (2004) off the coast between Khawr al Bayḑah and Jazīrat al Ḩamra'.

UMM AL QAYWAYN TO DUBAI

General information

Chart 3175

Route

7.50

1 From a position NW of Umm al Qaywayn (25°35′N 55°34′E) (7.37) the route leads SW for 23 miles to a position NW of Dubai Approach Light-buoy (25°18′·5N 55°10′·0E) (7.54).

Topography

7.51

1 The coast between Umm al Qaywayn and 'Ajmān, 13 miles SSW, is low and sandy; there are a number of villages set among a few date palms.

Anchorage

7.52

1 Anchorage between Umm al Qaywayn and 'Ajmān is not recommended in depths of less than 20 m, except in calm weather; the holding is poor. The bottom in the vicinity of the 15 m depth contour is fissured and irregular; nearer the coast, in depths of between 9 and 11 m, there are ridges of hard sand and rock. Anchoring is not recommended between Shārjah (25°22′N 55°22′E) and Dubai, 9 miles SW, as the holding, sand and shell, is poor; any vessel obliged to anchor should do so well offshore and veer plenty of cable.

Other aids to navigation

7.53

1 **Racons:**

Shārjah Offshore Terminal (25°35′N 55°24′E) (7.55).

Dubai Approach Light-buoy (25°18′·5N 55°10′·0E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 7.18)

7.54

1 From a position NW of Umm al Qaywayn (25°35′N 55°34′E) the track leads SW, passing:

NW of an unlit mooring buoy (25°38′·3N 55°27′·2E) laid about 6½ miles offshore NW of Umm al Qaywayn, thence:

NW of Shārjah Offshore Terminal (25°35′N 55°24′E) (7.55), thence:

SE of a detached bank (25°27′N 55°07′E) extending about 14 miles SW, with a least depth of 16 m; a light-buoy (E cardinal) is moored NW of the bank in the vicinity of two wrecks. Thence:

2 NW of a area of foul ground (25°26′·3N 55°15′·2E) with a least depth over it of 20 m, thence:

SE of the dangerous wreck (25°25′·5N 55°07′·6E) lying on the SE part of the detached bank, thence:

NW of Dubai Approach Light-buoy (safe water) (25°18′·5N 55°10′·0E).

(Directions continue for Abu Dhabi at 7.156)

Shārjah Offshore Oil Terminal

General information

7.55

1 **Position and function.** Shārjah (Ḩamrīyah) Offshore Oil Terminal (25°35′N 55°24′E) is situated off the NW coast of the United Arab Emirates; the SBM is an export facility for mainland oilfields.

Approach. The terminal and pilot boarding position have a clear approach from N.

Traffic. In 2004, the terminal was used by 40 ships with a total of 4 630 816 dwt.

Port Authority. Amoco Shārjah Oil Company, PO Box 1191, Shārjah, United Arab Emirates.

Limiting conditions

7.56

1 **Controlling depth.** The SBM is moored in a depth of 21·5 m.

Maximum size of vessel handled. The terminal can handle vessels up to 80 000 dwt on a maximum loaded draught of 16·8 m.

Arrival information

7.57

1 **Port operations.** Vessels are berthed during daylight only; unberthing night and day.

Notice of ETA required. Send ETA 72, 48 and 24 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3)*.

Outer anchorages. Anchorage may be obtained 3 miles N of the SBM; see 7.64.

2 **Prohibited anchorage.** Anchorage is prohibited within 2 miles of the SBM and the pipeline connecting the terminal with the shore SE; see 1.17.

Pilotage is compulsory; pilot/mooring master boards in the anchorage; see *Admiralty List of Radio Signals Volume 6 (3)*.

Mooring launch available.

Terminal

7.58

1 **General layout.** The terminal is a single SBM; Ḩamrīyah Freezone Port (7.62) is entered 7 miles SE.

Landmark:

A conspicuous square water tank (framework structure) (25°33′·6N 55°32′·9E) stands on a small rise SW of Umm al Qaywayn (7.37).

Directions

7.59

1 From WNW of Umm al Qaywayn (25°35′N 55°34′E) the pilot boarding position and terminal are approached from N.

Useful marks:

An unlit mooring buoy (25°38′·3N 55°27′·2E) on the E side of the approach track.

A light-buoy (25°34′·6N 55°27′·6E) (W cardinal) moored between the terminal and the shore, 3½ cables WNW of a dangerous wreck.

Berth

7.60

1 The terminal SBM (lit) is moored in a depth of 21·5 m.

Port services

7.61

1 **Facilities.** No oily waste reception facilities.

Supplies. No fresh water, fuel oil or provisions.

Communications. See 7.68.

Harbour regulations. The terminal lies in an open and exposed roadstead. Vessels berthed at the terminal must be kept at a state of immediate readiness for sea; main engines are not to be shut down for repairs.

Ḩamrīyah Freezone Port

Charts 3175, 3412, 3410 plan of Ḩamrīyah Freezone Port

General information

7.62

1 **Position and function.** Ḩamrīyah Freezone Port (25°28′N 55°29′E) lies within a basin on the NW coast of the United Arab Emirates; the harbour, originally constructed for the export of LPG, now handles car imports and general cargo; it is a free trade zone.

Topography. The main basin lies WSW of Khawr Zawrah, a wide expanse of shallow backwaters, on the NE side of its entrance stands the town of Ḩamrīyah.

2 **Approach and entry.** The pilot boarding position is approached from NW passing clear of Shārjah Offshore Terminal (7.55); the port is approached passing clear of Ḩamrīyah Fairway Light-buoy (safe water) (25°32′·2N 55°26′·0E) and entered through a channel, 180 m wide, marked by light-buoys (lateral).

Traffic. In 2004, the terminal was used by 10 ships with a total of 1 135 498 dwt.

Port Authority. Amoco Shārjah Oil Company, PO Box 1191, Shārjah, United Arab Emirates.

Limiting conditions

7.63

1 **Controlling depth.** The entrance channel is dredged to 15 m (1985).

Maximum size of vessel handled. The LPG berths can handle vessels up 83 000 dwt and 230 m in length.

Arrival information

7.64

1 **Port operations.** Vessels are berthed during daylight only, unberthing night and day; vessels berth port side to at the LPG berth.

Notice of ETA required. Send ETA 72, 48 and 24 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3)*.

Home Contents Index

2 **Outer anchorages.** Anchorage areas lie WNW of the harbour entrance; positions, with reference to to Ḩamrīyah W Breakwater Head (25°28′·7N 55°28′·7E):

Area	*Position*	*Purpose*
A	8¾ miles WNW	Vessels carrying dangerous cargoes.
B	6 miles WNW	General cargo vessels.

Prohibited anchorage. A prohibited anchorage area, which includes the entrance channel, lies 2 miles either side of a submarine pipeline which extends NW from the shore to Shārjah Offshore Terminal (7.55); see 1.17.

3 **Submarine pipeline** A submarine gas pipeline from the Mubarek Oilfield (7.76) lands about 1 mile SW of the port; see 1.17.

Pilotage is compulsory; pilot boards 1 mile NW of Ḩamrīyah Fairway Light-buoy (25°32′·2N 55°26′·0E); see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

7.65

1 **General layout.** The main basin, entered from N, is enclosed by a protective breakwater and mole; the harbour area is dredged to 16 m (2004).

Development. The new basin (works in progress 2005) is approached from NNW of No 2 Light-buoy (25°29′·4N 55°29′·4E) passing ENE of a spoil ground area and entered NE of the main basin between a breakwater and a training wall (lights lateral); its entrance, dredged to 7 m (2004), lies close SW of the entrance to Khawr Zawrah.

2 **Landmark:**

A minaret (25°28′·7N 55°29′·8E) stands in the SW part of the town of Ḩamrīyah, on the NE side of the entrance to Khawr Zawrah.

Directions for entering harbour

7.66

1 From the vicinity of Ḩamrīyah Fairway Light-buoy (safe water) (25°32′·2N 55°26′·0E) the track generally leads SE passing (with reference to Ḩamrīyah Breakwater Head (25°28′·7N 55°28′·7E)):

NE of No 1 Light-buoy (starboard hand) (2½ miles NNW) and through the channel marked by light-buoys (lateral).

Sector light:

A sectored light-beacon (framework tower) (25°28′·1N 55°28′·7E) stands near the inner end of the main breakwater.

2 The track continues within the white sector (183·2°–184·2°) of the light-beacon, passing:

E of the W breakwater head from which a light (framework tower 12 m high) is exhibited, thence:

W of E mole from which a light (framework tower, 12 m high) is exhibited and through into the main basin.

Berths

7.67

1 The berthing and mooring dolphins of the LPG and FAL berths lie on the SW side of the main basin; four numbered berths lie on its N and E sides; Berth 1, the general cargo berth, is 250 m in length.

Port services

7.68

1 **Repairs.** No repair facilities.

Other facilities. No medical facilities (in emergency Shārjah Hospital); deratting and exemption certificates issued; no oily waste reception facilities.

Supplies. No fresh water or fuel oil available.

Communications. Shārjah International Airport is situated about 8 miles S.

‘Ajmān

Charts 3412, 3410 plan of ‘Ajmān

General information

7.69

1 **Position and function.** The port and town of ‘Ajmān (Ajman) (25°26′N 55°27′E) lie on the S side of the entrance to Khawr ‘Ajmān; the town is the capital of the State of ‘Ajmān, the smallest of the United Arab Emirates. The largest fishing fleet in the Emirates operates from the harbour; it is also much frequented by dhows.

Approach and entry. The pilot boarding position is approached from N, the track then leads ESE passing clear of ‘Ajmān Fairway Light-buoy (25°27′·4N 55°26′·5E); the port is entered from N through a dredged channel, marked by light-buoys (lateral).

2 **Traffic**. In 2004, the port was used by 29 vessels with a total of 107 376 dwt.

Port Authority. Emirates Ports Services, PO Box 388, ‘Ajmān, United Arab Emirates.

Limiting conditions

7.70

1 **Controlling depth.** The entrance channel, depths off the berths on the N side of the town and the turning basin are all dredged to 8 m (1998); depths of 7 m lie on the N side of the harbour and extend into the entrance to Khawr Zawrah.

Deepest and longest berth. No 3 Berth is about 600 m in length with alongside depths of 8 m. See 7.74.

2 **Tidal levels.** Mean spring range about 1·1 m; mean neap range about 0·6 m; see *Admiralty Tide Tables Vol 3.*

Density of water is 1·020 g/cm^3.

Maximum size of vessel handled. The port can normally handle vessels up to a maximum length of 170 m with a draught of 7·6 m; at high water vessels up to 180 m in length on a maximum draught of 8 m can be accepted.

Arrival information

7.71

1 **Notice of ETA required.** Vessels should establish contact on VHF 2 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained within 1 mile of ‘Ajmān Fairway Light-buoy (25°27′·4N 55°26′·5E) with the agreement of ‘Ajmān Port Authority. However, anchorage offshore is not generally recommended; irregular ridges of sand, shell and dead coral, with depths of less than 10 m over them, extend up to 2½ miles offshore. See 7.52.

2 **A submarine power cable** crosses the entrance channel from, on its N side, close W of a stranded wreck to a position W of Berth 1.

Pilotage is not compulsory, but is available on request; a minimum of 48 hours notice for berthing is required. Pilot boards 3 miles NW of harbour entrance; see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

7.72

1 **General layout.** The main harbour lies mostly within Khawr ‘Ajmān on the N and E sides of the town, but wharfs also extend some distance S then E into an area dredged to 5 m; a spur, dredged to 3 m, extends E then S from close S of the junction of Khawr ‘Ajmān with Khawr Zawrah; a 300 m diameter turning circle lies opposite Berth 5.

Development. Khawr Zawrah and its vicinity are under development.

2 **Landmark:**

A fort with a tower, 19 m high, (25°24′·8N 55°26′·7E) stands in the old part of the town.

Burj al Mai (25°24′·3N 55°25′·8E) (Chart 3412) a prominent watch tower, 14 m high, stands on the shore about 1¾ miles SSW of the entrance to Khawr ‘Ajmān; the water tower, 4 cables SE of the tower, is now set among tower blocks and is less prominent.

Directions for entering harbour

7.73

1 From the pilot boarding position the track leads ESE for about 2 miles to the vicinity of ‘Ajmān Fairway Light-buoy (safe water) (25°27′·5N 55°26′·5E); it continues S passing W of an obstruction, with a safe clearance depth of 2 m. The port is entered through a channel, marked by light-buoys (lateral), between training walls, from which lights (lateral, framework towers) are exhibited.

Berths

7.74

1 Berths 1, 3 and 5 have alongside depths of 8 m and lie on the S side of Khawr ‘Ajmān along the N side of the town; Berths 6, 9, 11, and 12 have alongside depths of 5 m and lie along its E side; note a depth of 4·7 m between 6 and 9 berths.

Port services

7.75

1 **Repairs.** A shipyard, with a dry dock of 20 000 tonnes capacity and four slips of between 1500 and 3000 tonnes, is situated on the N side of the harbour; the yard also has two repair quays with alongside depths of about 4 m; the facility is principally used by coasters, supply boats and harbour craft.

Other facilities. Hospital; deratting and exemption certificates issued; garbage disposal available.

Supplies. Fuel oil and diesel (barge or road tanker); fresh water (limited quantities by road tanker); provisions.

Communications. Shārjah International Airport is situated about 6 miles SSE.

Mubarek Oil Terminal

Chart 3175

General information

7.76

1 **Position and function.** Mubarek Oil Terminal (25°49′N 55°11′E) is situated in the SW part of Mubarek Oilfield, 7 miles ESE of Abū Mūsá (7.81); the terminal, which services the oilfield, consists of the floating storage unit *Mubaraka* permanently moored by its stern; it is under the jurisdiction of the Emirate of Shārjah.

Approach. The pilot boarding position and oil storage unit are approached from the anchorage.

Traffic. In 2004, the terminal was used by 1 vessel with a dwt of 319 430.

2 **Port Authority.** Crescent Petroleum Co Inc., PO Box 211, Shārjah, United Arab Emirates.

Limiting conditions

7.77

1 **Controlling depth.** The storage tanker is moored in depths in excess of 40 m.

Density of water is 1·027 g/cm^3.

Maximum size of vessel handled. The storage unit can handle tankers up to 275 000 dwt.

Arrival information

7.78

1 **Port operations.** Vessels are normally berthed, weather and other factors permitting, in daylight only; unberthing night and day. Vessels berth bow to bow with the storage tanker and are connected by floating hose.

Notice of ETA required. Send ETA 72, 24, 12 and 4 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3)*.

Anchorage may be obtained, in depths of about 50 m, 6 miles ENE of the storage unit and close E of the restricted area.

2 **Submarine pipelines** connect the various production platforms with the central controlling platform; a submarine gas pipeline extends S from the centre of the field to land near Jebel Ali (25°00′N 55°03′E); an oil pipeline extends S then WSW connecting the control platform with the floating storage unit, the directional change of this pipeline is marked by a light-buoy; see 1.17.

Pilotage is compulsory; pilot/mooring master boards in the anchorage area; see *Admiralty List of Radio Signals Volume 6 (3)*.

3 **Tugs** available.

Restricted area. Mubarek Oilfield contains numerous production platforms, well heads and other structures all enclosed by a restricted area. Only vessels servicing the oilfield, or under pilotage to or from the oil terminal, may enter the area; see 7.5.

Harbour

7.79

1 **General layout.** The terminal is situated in the SW part of the oilfield in which there are a number of production platforms (lit); a flare burns from a platform near the centre of the field.

Port services

7.80

1 **Repairs.** No repair facilities.

Facilities. Medical emergencies treated at Dubai or Shārjah.

Supplies. No supplies available.

Communications. Dubai International Airport 35 miles distant.

Anchorages and harbours

Abū Mūsá

7.81

1 **Description.** Abū Mūsá (25°53′N 55°02′E) is a mostly low island, but has numerous hummocks, some of which are of iron oxide and are dark chocolate in colour; the N point of the island rises to a remarkable hill with two summits. There are many buildings near its W point from the vicinity of which a curved breakwater extends S; a light-buoy (W cardinal) marks a dangerous shoal SW of the

outer end of the breakwater; a airstrip is situated near the centre of the island. Jabal Halwa, light pinkish in colour and conspicuous, rises abruptly in the N part of the island; a light (beacon) is exhibited from the summit.

2 **Anchorage** may be obtained, sheltered from the *shamāl*, in depths of between 10 and 12 m near the S end of the E side of the island; anchorage, with good holding, has also been obtained off the S part of the island.

Chart 3410 plan of ‘Ajmān

Al Ḩayrah

7.82

1 **Description.** Al Ḩayrah (25°23′N 55°25′E), a village with a small boat and fishing harbour, is entered from NE between breakwaters from which lights (lateral) (framework towers, 2 m high) are exhibited. A prominent minaret (7.102) stands in the village.

Chart 3412

Al Ḩamrīyah

7.83

1 **Description.** Al Ḩamrīyah (25°18′N 55°20′E) is entered from N about 2½ miles NE of the entrance to Khawr Dubai; lights (lateral) are exhibited from each side of its entrance. The harbour lies within an area of reclaimed land which fronts the coast; the entrance and basin are both dredged to 6 m (1979). The harbour is administered by Dubai Port Authority; fresh water and fuel available.

2 **Directions.** Vessels approaching Al Ḩamrīyah are required to keep clear of the exclusion zone surrounding the Palm Island Three, Palm Deira development; see 7.3. For the latest information contact the port authority and consult the latest *Admiralty Notices to Mariners.*

SHĀRJAH

General information

Charts 3412, 3410 plan of Shārjah

Position

7.84

1 Shārjah (Ash Shāriqah) (25°22′N 55°22′E) is situated on the NW coast of the United Arab Emirates.

Function

7.85

1 Shārjah is the principal city of the State of Ash Shāriqah the only state of the United Arab Emirates to have coastlines on Gulf of Oman and Persian Gulf. Mīnā’ Khalid is the port for Shārjah.

Topography

7.86

1 Al Khān is a village about 2 miles SW of Shārjah on the N side of the entrance to Khawr al Khān, the village stands out clearly from the surrounding neighbourhood which is low and swampy for some miles inland; Al Mamzar Creek Park is situated on reclaimed land on the W side of its entrance.

Approach and entry

7.87

1 The pilot boarding position and Shārjah Fairway Light-buoy (25°22′·9N 55°20′·9E) are approached from NW. Two dangerous wrecks lie in the N approaches on an area of spoil ground, where there are fresh water seabed springs which may cause false readings on echo sounders, about 4½ miles NNW of the port. The entry track then leads ESE and S through the entrance channel and between the breakwaters.

Traffic

7.88

1 In 2004, the port was used by 805 vessels with a total of 12 547 315 dwt.

Port Authority

7.89

1 Shārjah Ports Authority, PO Box 510, Shārjah, United Arab Emirates.

Development

7.90

1 The Palm Island Three, Palm Deira development extends up to 10 miles from the shore between Mīnā’ Khalid (25°22′N 55°22′E) and Mīnā’ Rashid, 7 miles SW; an exclusion zone has been established in the area; see 7.3. For the latest information contact the port authority and consult the latest *Admiralty Notices to Mariners.*

Limiting conditions

Controlling depths

7.91

1 The entrance channel is dredged to 11·5 m (2004); the harbour in its SW part to 10·5 m (2004); note lesser depths lie in the vicinity of the fairway light-buoy.

Deepest and longest berth

7.92

1 The Container Terminal quay is about 570 m in length with a least alongside depth of 10·5 m. See 7.104.

Tidal levels

7.93

1 Mean spring range about 1·3 m; mean neap range about 0·6 m; see *Admiralty Tide Tables Vol 3.*

Density of water

7.94

1 The density of water is 1·020 g/cm^3.

Maximum size of vessel handled

7.95

1 The Container Terminal can handle vessels up to a maximum draught of 11·5 m.

Arrival information

Notice of ETA required

7.96

1 Send ETA 72, 48 and 24 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

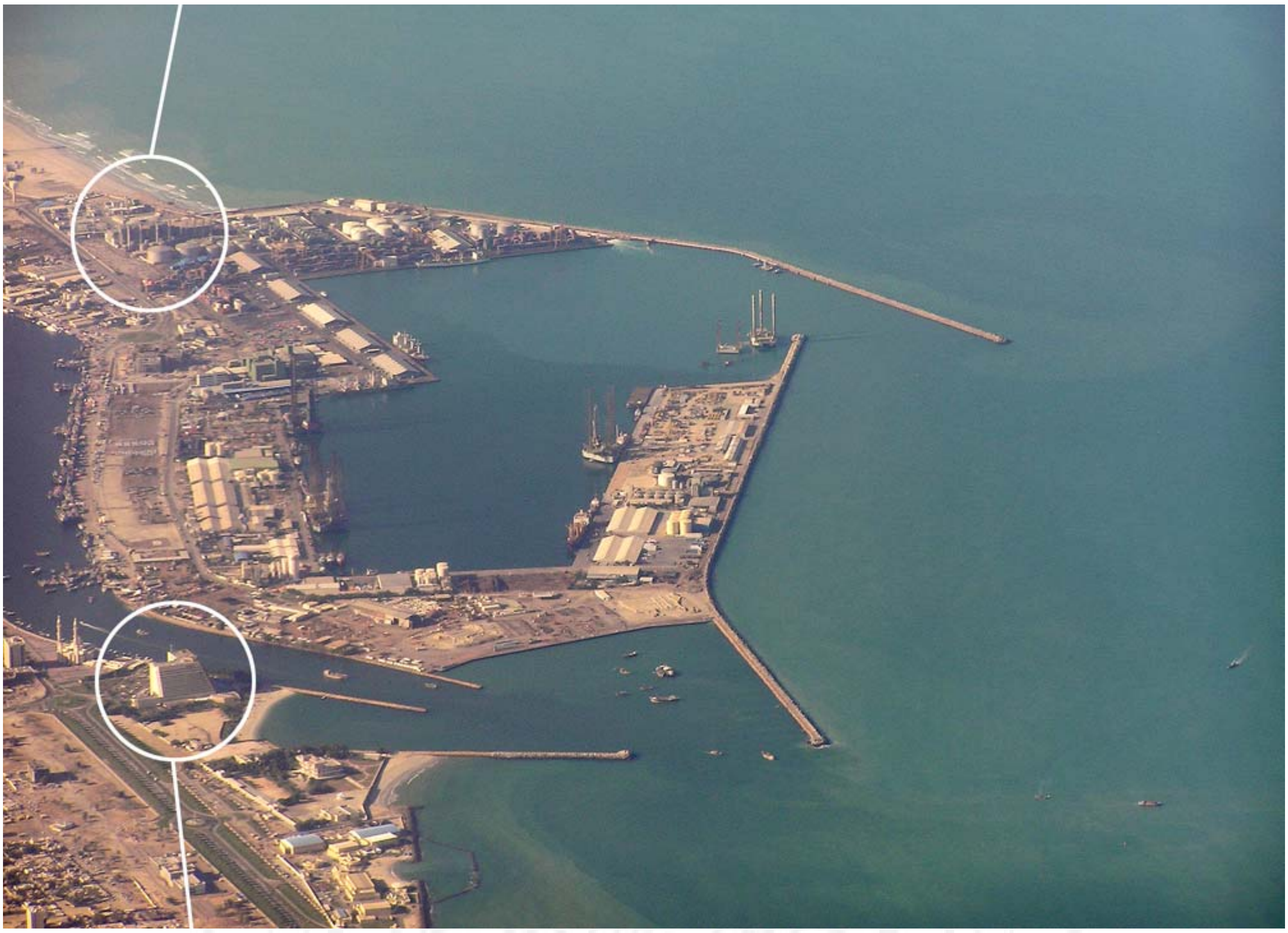
7.97

1 Anchorage may be obtained seaward of the harbour, but clear of the approach channel and fairway light-buoy. The bottom is irregular, hard sand, shells and dead coral and the holding is poor. Vessels are advised to anchor in a depth of not less than 10 m in summer and 12 m in winter.

Pilotage

7.98

1 Pilotage is compulsory and available day and night; pilot boards NNW of Shārjah Fairway Light-buoy (25°22′·9N 55°20′·9E); see *Admiralty List of Radio Signals Volume 6 (3).*



Shārjah – Mīnā’ Khalid and entrance to Khawr Khalid (7.84)

(Original dated 2004)

(Photograph – Sarah Astin)

Tugs

7.99

1 Tugs are available.

Harbour

General layout

7.100

1 Mīnā’ Khalid, an enclosed basin, lies W of Shārjah and is entered between Main and Lee Breakwaters through 180 m wide entrance.

Natural conditions

7.101

1 **Tide stream.** A strong tidal set, SW with the in-going stream and NE with the out-going, will normally be experienced setting across the harbour entrance.

Climatic table. See 1.145 and 1.156.

Principal marks

7.102

1 **Landmarks:**

A conspicuous minaret (25°23′·2N 55°24′·8E) stands in the village of Al Ḩayrah; a water tower (Chart 3412), with some radio masts (obstruction lights) close by, stand about 7 cables E.

A conspicuous hotel (78 m high) (25°22′·3N 55°23′·5E) stands on the E side of the entrance to Khawr Khalid.

2 Four conspicuous power station chimneys (50 m high; obstruction lights) (25°21′·4N 55°22′·3E) stand S of Mīnā’ Khalid.

A conspicuous TV mast (25°18′·6N 55°20′·7E) stands near the coast NNE of Al Ḩamrīyah (7.83).

Directions for entering harbour

7.103

1 From the vicinity of Shārjah Fairway Light-buoy (25°22′·9N 55°20′·9E) the track leads initially ESE, then S, through a channel, marked by light-buoys (lateral); passing E of Main Breakwater Head and W of Lee Breakwater Head from which lights (lateral) are exhibited.

Berths

7.104

1 Within the main harbour are twenty one berths; Berths 1 to 3 form the container terminal with alongside depths of between 10·5 and 11·5 m and Berth 8 is a Ro-Ro facility. A T-headed oil terminal jetty lies between Berths 17 and 18; a second oil jetty, with breasting dolphins, is situated on the W side of the entrance, inside Main Breakwater, and can accommodate vessels of up to 230 m in length on a maximum draught of 9·5 m.

Port services

Repairs

7.105

1 Repair facilities available; dry dock 850 tonnes capacity.

Other facilities

7.106

1 Hospital; deratting and exemption certificates issued; garbage reception facilities.

Supplies

7.107

1 Fresh water available at all berths and from barge; diesel and fuel oil available from oil jetty (tankers have priority); ships stores available.

Communications

7.108

1 Shārjah International Airport is situated about 15 km E of the town.

Khawr Khalid

Description

7.109

1 Khawr Khalid (25°20′N 55°23′E), entered E of Mīnā’ Khalid (7.100), provides extensive berthing facilities for coastal vessels. The inlet is entered from NW through a channel, marked by light-buoys (lateral), which leads to an outer basin, protected by East and West Breakwaters from which lights (lateral) are exhibited; it continues S between two training walls from which again lights (lateral) are exhibited. The entry channel and the main part of the outer basin are dredged to 8 m (2004); the inner channel and inlet to 5·5 m (1979).

2 West Wharf and Layyah Wharf, used mainly by coasters, lie on the W side of Khawr Khalid with alongside depths of 4 m; Fish Wharf, Suq Wharf and Town Wharf, used mainly by local craft, lie on the E side with alongside depths of between 2·7 and 4 m. Cliff Wharf and Market Wharf, mainly used by coasters and local craft, lie on the SW side of the town with alongside depths of 4 m.

DUBAI

General information

Charts 3412, 3411

Position

7.110

1 Dubai (Dubayy) (25°16′N 55°18′E) is situated on the NW coast of the United Arab Emirates.

Function

7.111

1 Dubai is the principal city of the State of Dubai and is considered the commercial capital of the United Arab Emirates; Mīnā’ Rashid, the port of Dubai, is one of the busiest ports in the Emirates; Dubai Dry Dock basin lies close SSW of the port.

Topography

7.112

1 The city and its suburbs lie on both sides of Khawr Dubai with the old town of Dubai on its S side; the city is rapidly expanding inland from the coast.

Port limits

7.113

1 Port limits include both Mīnā’ Rashid and Dubai Dry Dock Harbour.

Approach

7.114

1 From the vicinity of Dubai Approach Light-buoy (25°18′·5N 55°10′·0E) the approach is from W passing between Palm Island Three, Palm Deira and The World Project through to the pilot boarding position; note the wreck (25°17′·8N 55°12′·3E), with a least depth over it of 10 m. For the latest information on changes to the approach contact the port authority; see 7.129.

Traffic

7.115

1 In 2004, the port was used by 2587 vessels with a total of 56 865 914 dwt.

Port Authority

7.116

1 Dubai Ports Authority, PO Box 17000, Dubai, United Arab Emirates.

Limiting conditions

Controlling depth

7.117

1 There is a least charted depth on the approach leading line to Mīnā’ Rashid of 12·7 m; depths within the main harbour basins vary and are best seen on the chart. Dubai Dry Dock Harbour is dredged to 11·5 m (1978).

Deepest and longest berth

7.118

1 Quay 5 is about 1·9 km in length with a least alongside depth of 10 m. See 7.137.

Tidal levels

7.119

1 Mean spring range about 1·3 m; mean neap range about 0·6 m; see *Admiralty Tide Tables Vol 3.*

Density of water

7.120

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

7.121

1 Container berths on Quay 5 can usually handle vessels up to a maximum draught of 12·8 m; the general cargo berths on the other quays can handle vessels up to a maximum draught of 11·5 m. Dubai Dry Dock basin can accommodate vessels up 545 000 dwt, 414 m in length, on a maximum draught of 13 m.

Arrival information

Port operations

7.122

1 It is compulsory for all vessels off Dubai to maintain VHF contact with Port Rashid Control Radio.

Notice of ETA required

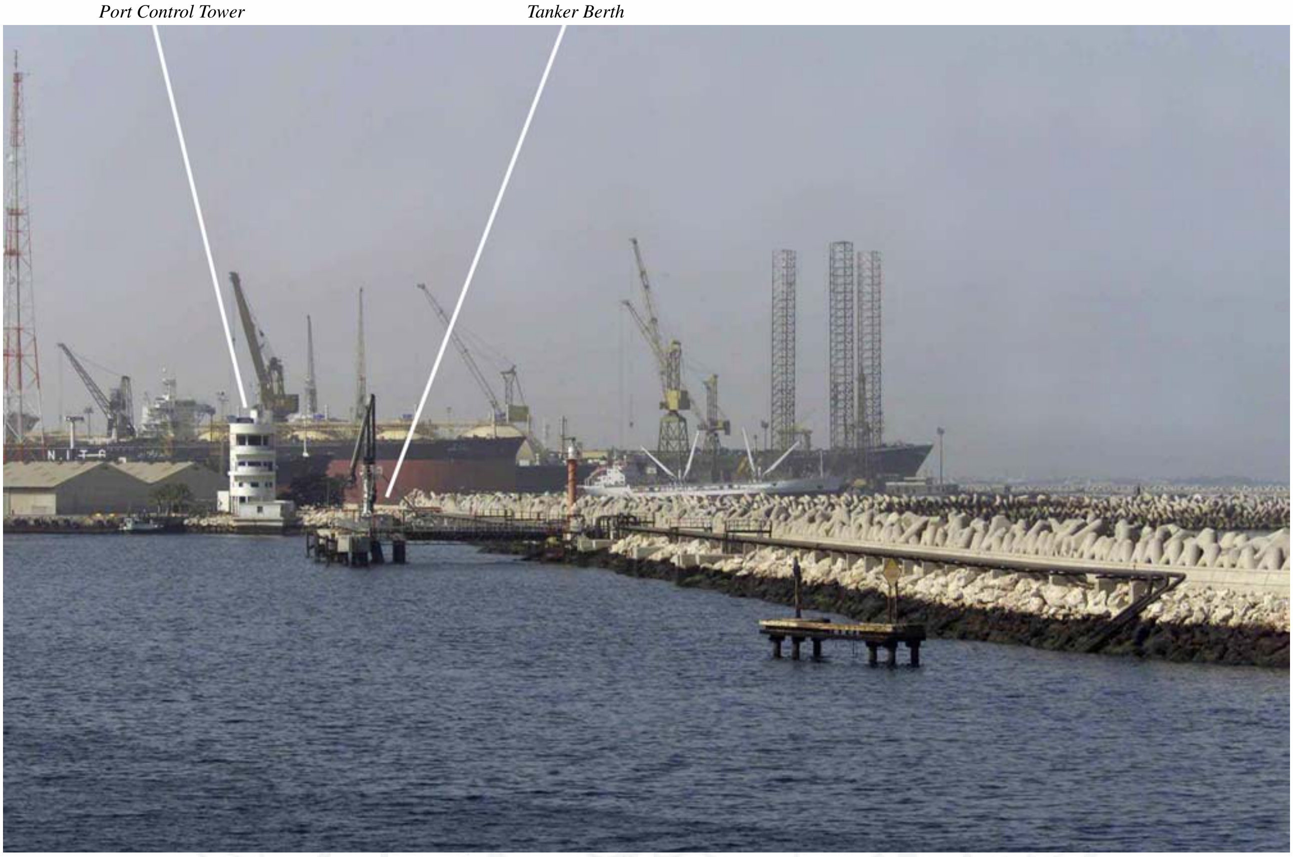
7.123

1 Send ETA 72 and 24 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage

7.124

1 Anchorage may be obtained in a position at least 6 miles N of Dubai Approach Light-buoy (25°18′·5N 55°10′·0E),



Dubai – Port Control Tower (7.136)
(Original dated 2001)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

clear of the prohibited entry area surrounding the Palm Island Three, Palm Deira project and well clear of the gas pipeline which extends N from Jebel Ali (25°00′N 55°03′E) to the Mubarek Oilfield (7.76); there is no protection from the *shamāl* in this area which usually blows from WNW with little warning. The port authorities should be consulted for the latest information on designated anchorages.

Submarine pipelines

7.125

1 A submarine oil pipeline extends across Mīnā’ Rashid between the inner and outer basins from the SW end of Quay 5 to a position on the main breakwater, marked by a beacon; see 1.17.

Pilotage

7.126

1 Pilotage is compulsory and available day and night; the pilot boards between the exclusion zones surrounding Palm Island Three, Palm Deira and The World Project. For the latest information on the pilot boarding position contact the port authority. See 7.129 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.127

1 Tugs are available.

Harbour

General layout

7.128

1 **Mīnā’ Rashid** is an extensive harbour entered SW of Khawr Dubai (7.145); it comprises two large basins separated by a broad mole within outer protective breakwaters. A conspicuous stranded wreck lies close off the inner side of Lee Breakwater, about 2½ cables NW of the entrance; a dangerous wreck lies 1 cable NE. Turning Light-buoy (yellow and green, can) is moored in the outer basin about 2½ cables SE of the head of Lee Breakwater. A light (mobile) is exhibited between Berth No 25 and No 26 from the knuckle on the broad mole; lights are also exhibited from mooring dolphins at the N and S ends of the Tanker Berth.

2 **Dubai Dry Dock Harbour,** entered close SW of Mīnā’ Rashid, lies within breakwaters; the complex contains a large dry dock and ship repair facilities.

Development

7.129

1 Dubai Maritime City is under construction on reclaimed land between Mīnā’ Rashid (25°16′N 55°17′E) and Dubai Dry Dock; an exclusion zone to maintain safety and assist craft working on the project has been established, but it does not apply to vessels entering or leaving Mīnā’ Rashid under port control; all other vessels are warned to keep well clear of the area. Work has commenced on World Project (25°14′N 55°10′E) also within an exclusion zone; see 7.3.

For the latest information contact the port authority and see *Admiralty List of Radio Signals Volume 6 (3)* and the latest *Admiralty Notices to Mariners.*

Crossing traffic

7.130

1 Traffic bound for Khawr Dubai (7.145) and related to local developments crosses the entrances to both ports N of Main Breakwater; vessels should proceed with caution.

Natural conditions

7.131

1 **Tidal streams.** Tidal streams are slight.

Currents. A current up to 1 kn may set ENE across the entrance following a period of strong NW winds.

Local weather. Fresh NW winds are frequently experienced, but at night light SW winds prevail; between November and March strong *shamāl* winds can be expected; fog may occur between November and March.

Principal marks

7.132

1 **Landmarks:**

A conspicuous TV mast (25°18′·6N 55°20′·7E) stands near the coast NNE of Al Ḩamrīyah (7.83).

Hyatt Regency Hotel (25°16′·8N 55°18′·3E), a conspicuous hotel with a 95 m tower, stands close E of the entrance to Khawr Dubai (7.145).

A prominent minaret (25°16′·4N 55°18′·3E), 38 m high with a clock, stands about 6 cables ESE of the entrance to Khawr Dubai; a silver dome is situated close SE. The minaret, along with others in the vicinity, is illuminated at night.

2 Emirates Towers (25°13′·1N 55°17′·0E) are prominent, each tower is triangular with a sloping roof and mast, the highest rising to 363 m; both towers (obstruction lights) are illuminated at night by white high intensity lights.

Major lights:

Dubai Trade Centre Light (25°13′·6N 55°17′·3E) exhibited from the top of a conspicuous white building about 3 miles S of the entrance to Khawr Dubai (7.145); the building is illuminated at night.

Other aid to navigation

7.133

1 **Racon:**

Dubai Approach Light-buoy (25°18′·5N 55°10′·0E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

Mīnā’ Rashid

7.134

1 **Leading lights:**

Front light-beacon (red framework tower, red rectangle on yellow triangle topmark; 5 m high) (25°16′·5N 55°16′·0E) stands on Mīnā’ Rashid Main Breakwater.

Rear light-beacon (similar structure and topmark; 8 m high) (8 cables S) stands on Dubai Dry Dock Harbour Lee Breakwater.

The alignment (182°) of these light-beacons leads S passing E of Mīnā’ Rashid Main Breakwater Head from which a light (white tower with black bands) is exhibited; and W of Mīnā’ Rashid Lee Breakwater Head from which a light (black metal post) is exhibited; see 7.130.

Dubai Dry Dock Harbour

7.135

1 **Sector light:**

A sectored light-beacon (metal tower) (25°15′·0N 55°15′·5E) stands on Dubai Dry Dock Harbour Main Breakwater.

The white sector (185°–188°) of Dubai Dry Dock Sector Light light leads S, passing W of Mīnā’ Rashid Main Breakwater Head; then E of Dry Dock Harbour Main Breakwater Head from which a light (metal tripod) is exhibited and W of Dubai Dry Dock Harbour Lee Breakwater Head from which a light (lateral) is exhibited; see 7.130.

7.136

1 **Useful marks:**

Yellow lights are exhibited at intervals along the lengths of both Mīnā’ Rashid and Dry Dock Harbour Main and Lee breakwaters.

Port Control Tower (25°15′·7N 55°16′·2E) stands at the head of the mole separating Mīnā’ Rashid Harbour from Dubai Dry Dock Harbour.

Basins and berths

Mīnā’ Rashid

7.137

1 Within the main harbour basin there are thirty five numbered berths along five separate quays; alongside depths, vary between 8·5 and 12·6 m; Ro-Ro facilities are situated at Berths 16 and 35. A Coastguard Base of three piers and a small quay is situated within the outer basin, close NE of Berth 35. Tanker Berth, consisting of a concrete jetty with breasting dolphins (lights), is situated close N of the Port Control Tower, the berth can handle vessels up to 260 m in length with a maximum draught of 11·3 m, 11·6 m by agreement. A small basin used by coastal traffic is entered between Quays 2 and 3; the basin has depths of between 5·2 and 6 m.

Dubai Dry Dock Harbour

7.138

1 There three dry docks and eight repair berths within the harbour basin; dolphins, from which lights are exhibited, extend NE from each side of the dry dock quay and NE from Finger Quay. There is a tank cleaning berth (lights) and a floating dock within the basin.

Port services

Repairs

7.139

1 There are full repair facilities and dry docks with capacity of up to 1 000 000 tonnes, floating dock 40 000 tonnes.

Other facilities

7.140

1 Hospitals; deratting and exemption certificates issued; oily waste reception facilities (tank washings two weeks notice); offshore supply service; garbage reception facilities.

Supplies

7.141

1 Fresh water available at all berths and by barge; fuel and diesel available at the tanker berth and all general cargo berths except Berths 5, 10 to 16 and the Container Terminal; stores and provisions available.

Offshore supply service

7.142

1 An offshore supply service operates out of Dubai, supply craft will rendezvous along the meridian of 55°E; see 1.13.

Communications

7.143

1 Dubai International Airport is situated about 5 miles E of the port.

Harbour regulations

7.144

1 The State of Dubai has warned ships and individuals against approaching to within 1 mile of its offshore installations; offenders face fines, imprisonment and possible confiscation of their vessels.

Khawr Dubai

General information

7.145

1 **Description.** Khawr Dubai (25°16′N 55°18′E), entered between boulder sea walls, trends S and SE to Al Maktoum Bridge and Al Garhoud Bridge where it widens into a series of swampy lagoons; the inlet is much frequented by dhows from all parts of Persian Gulf. A least depth of 4·9 m lies over the tunnel close within the entrance; less water was reported (1999) in the approaches and within the inlet.

2 **Approach** The approach to Khawr Dubai is through a restricted area; traffic must of necessity pass close to Dubai Approach Light-buoy (25°18′·5N 55°10′·0E) and Khawr Dubai Fairway Light-buoy (25°17′·6N 55°17′·3E) which involves crossing the major fairway; see 7.129. For the latest information contact the port authority and consult the latest *Admiralty Notices to Mariners.*

Arrival information

7.146

1 **Notice of ETA.** Vessels should send ETA 2 hours prior to arrival to Dubai Port Control; see *Admiralty List of Radio Signals Volume 6 (3).*

Pilotage, arranged through the Harbour Master, is compulsory for merchant vessels and available 0600–2359, outside these hours by arrangement; see 7.126.

Landmarks:

See 7.132.

Directions for entering harbour

7.147

1 From the vicinity of Khawr Dubai Fairway Light-buoy (safe water) (25°17′·6N 55°17′·3E), which lies within a restricted area see 7.129, the track leads SSE to the outer end of the entrance channel, passing ENE of Mīnā’ Rashid outer basin; it continues passing ENE of Khawr Dubai Entrance Light exhibited from Lee Breakwater close E of the coastguard base; then through the entrance between boulder protective walls from which lights (lateral) (dolphins, 3 m high) are exhibited.

2 The channel within the inlet passes over the tunnel, with a least depth over it of 4·9 m, and around Ra’s Dayrah (25°16′·0N 55°17′·5E) where the E side of the fairway is marked by two light-beacons and a beacon. The track continues about 5 cables E to Customs Wharf on the S bank; depths in excess of 5 m can be carried from the tunnel as far as the wharf. Above Customs Wharf the channel is dredged to 5·5 m as far as Al Maktoum Bridge; taking account silting or any dredging works, light-buoys are laid, as necessary, to mark the channel.

3 **Useful mark:**

Lights are occasionally exhibited from a mast on the S side of the inlet, SSE of Ra’s Dayrah.

Berths

7.148

1 A passenger and immigration terminal is situated on the S shore opposite Ra’s Dayrah; Suq Wharf, with alongside depths of between 2·8 m to 3·3 m, is situated on the opposite bank; Customs Wharf is on S bank and is mainly used by trading dhows; Oil Jetty and BOAC jetty extend SW from the NE shore opposite the Shaykh’s Palace.

Port services

7.149

1 Repair yard, synchrolift up to 4275 tonnes capacity.

Al Maktoum Bridge

7.150

1 A lifting span at the N end of the bridge provides a clear, 26·5 m wide, channel; arrangements for opening should be made through the Oilfield Supply Centre Superintendent or the Bridge Master. The bridge will not be opened between 0700–0930, 1100–1430 and 1600–1900; vessels should not approach during these times. If advance notice of passage has been given, a vessel from seaward should proceed with caution and sound three long blasts on her whistle when abreast BOAC jetty, otherwise secure to Bridge Wharf on the N shore; from upstream a vessel should sound three long blasts when about 1½ cables from the bridge and again proceed with caution. A green light exhibited from the bridge indicates the span is open and passage through is permitted; a red light indicates that passage is prohibited even though the span may be open.

DUBAI TO ABŪ Z̧ABY (ABU DHABI)

General information

Charts 2889, 3176, 3177

Route

7.151

1 From a position NW of Dubai Approach Light-buoy (25°18′·5N 55°10′·0E) the route initially leads SW for 20 miles to a position NW of Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E); it then continues SW for 46 miles to a position N of Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E).

Concentrations of traffic

7.152

1 Coastal shipping passing in the vicinity of Jebel Ali is advised to keep well to seaward of the port limits to avoid hampering the movement of vessels entering or leaving the port.

Tidal streams

7.153

1 The tidal streams follow the line of the coast with rates of less than 1 kn at springs. In the entrance and channels of Khawr as Sa‘dīyat (24°36′·0N 54°28′·6E) and Khawr al Bighāl (24°32′·0N 54°23′·7E) streams are strong, at times over 4 kn.

Principal marks

7.154

1 **Landmarks:**

Jabal al ‘Ālī (25°01′·8N 55°07′·6E) is a conspicuous flat-topped, 67 m high, hill standing about 3 miles ENE of Jebel Ali (7.176); three conspicuous radio towers and four dish aerials (obstruction lights) stand on the hill.

Chicago Beach Resort Hotel (25°08′·5N, 55°11′·4E) standing close offshore from the Chicago Beach Resort Harbour (7.173). The hotel is very conspicuous having the appearance of a yacht’s sail (see views Chart 3412); a pier 5 cables SW of the hotel, is floodlit at night.

2 **Major light:**

Dubai Trade Centre Light (25°13′·6N 55°17′·3E) (7.132).

Other aids to navigation

7.155

1 **Racons:**

Dubai Approach Light-buoy (25°18′·5N 55°10′·0E).

Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E).

Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 7.54)

7.156

1 From a position NW of Dubai Approach Light-buoy (25°18′·5N 55°10′·0E) (7.54) the track leads initially SW, passing:

SE of the dangerous wreck (25°25′·5N 55°07′·6E) lying on the SE part of a 20 m bank (7.54), thence:

NW of a wreck (25°16′·8N 55°03′·7E) with a least depth over it of 13 m; DB–ONE Light-buoy (N cardinal) is moored on its N side. Thence:

Clear of a dangerous wreck (25°15′·0N 54°51′·5E); a light-buoy (N cardinal) is moored close N, thence:

NW of Jebel Ali Approach Light-buoy (safe water) (25°10′·6N 54°52′·3E), thence:

2 NW of a light-buoy (special) (25°10′·0N 54°47′·5E) moored on the SE side of an area of spoil ground, thence:

SE of a dangerous wreck (25°06′·8N 54°34′·3E) marked by a light-buoy (isolated danger); a similar dangerous wreck lies 4 miles W. Thence

NW of two dangerous wrecks (25°00′·4N 54°31′·8E and 2½ miles SW); a light-buoy (isolated danger) is moored close W of the second. Thence:

SE of Şīr Abū Nu‘ayr (25°14′N 54°13′E) (7.169); a dangerous obstruction lies about 9 miles ESE of the island.

7.157

1 The track continues SW, passing:

NW of a shoal patch (24°44′·8N 54°22′·6E) with a least depth of 8·8 m, thence:

NW of a shoal (24°41′·3N 54°19′·5E) with a least depth of 7·2 m; other shoals, one with a least depth of 8·4 m lies 1½ miles NE and another, with a least depth of 8·1 m, 1¾ miles WSW. Thence:

The track continues SSW to a position in the vicinity of Abu Dhabi Light-buoy (safe water) (24°40′·1N 54°14′·1E).

Jazīreh-ye Sirrī Terminal

Charts 2442, 3409 plan of Sirrī Oil Terminal

General information

7.158

1 **Position and function.** Jazīreh-ye Sirrī Oil Terminal (Sirri Terminal) (25°54′N 54°33′E) is situated on the SE corner of the Iranian island of Jazīreh-ye Sirrī, about 25 miles W of Abū Mūsá (7.81): the terminal services the Sirrī A, Sirrī E and Nasr Oilfields.

Description. Jazīreh-ye Sirrī has several hills, the highest, 39 m high, stands on its NW side. Sirrī, a small village on its S coast, lies a short distance W of the low sandy SE corner of the island; there are several houses and date groves on the N part of the island. Two islets, 5 and 6 m high, stand with some rocks awash, close off the W side of the island on a generally foul coastal bank.

2 **Port limits** extend seaward from the SE corner of the island and include the terminals and a small harbour.

Approach from the NE is clear and free of dangers.

Traffic. In 2004, the terminal was used by 19 vessels with a total of 4 185 471 dwt.

Port Authority. Iranian Offshore Oil Co., 339 Shahid Beheshti Avenue, Tehran, Iran.

Limiting conditions

7.159

1 **Controlling depth.** Depths in the immediate approach to the berth are in excess of 30 m.

Deepest and longest berth. The berth face is about 190 m long with alongside depths of 24 m.

Tidal levels. Mean spring range about 1·2 m; mean neap range about 0·4 m; see *Admiralty Tide Tables Vol 3.*

Density of water is 1·030 g/cm^3.

Maximum size of vessel handled. The terminal can handle vessels up to 330 000 dwt, between 240 and 365 m in length on a maximum draught of 24 m.

Arrival information

7.160

1 **Port operations.** Vessels usually berth port side to.

Notice of ETA required. Send ETA 96 and 48 hours prior to arrival; contact terminal on VHF 4 hours in advance of arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Anchorage may be obtained in a depth of more than 60 m in an area of 1 mile diameter centred about 1½ miles E of Jazīreh-ye Sirrī Light (25°54′·3N 54°33′·1E); a wreck (position approximate), with a safe clearance of 50 m, is situated in the SE part of this area. Anchorage off the island is indifferent and the holding ground is poor; N and W of the island anchorage is considered unsafe.

2 **Prohibited anchorage.** Anchorage is prohibited in the submarine pipeline areas extending SE from the vicinity of the terminal, and S from close W of the SE corner of the island. These pipelines connect the terminal with Nasr Oilfield (25°43′N 54°14′E), Sirrī A Oilfield (25°46′N 54°05′E) and Sirrī E Oilfield (25°46′N 54°37′E); a light-buoy (orange conical) is laid about 6½ cables SSW of the terminal between these two areas. See 1.17. and 7.5.

Pilotage is compulsory and available day and night; berthing master boards 2 miles E of the terminal; see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Terminal

7.161

1 **General layout.** The terminal jetty is connected to the SE end of the island by a walkway; three mooring dolphins lie NNE and SSW; a mooring buoy, used by tugs, is laid close offshore about 4 cables N of the terminal.

Hazard. Tidal streams are reported to run strongly at the jetty sometimes making berthing difficult.

Landmark:

A water tower (25°53′·8N 54°32′·4E) stands on the E side of the village of Sirrī; a helicopter landing site is situated close SSW.

Directions for entering harbour

7.162

1 From the vicinity of the pilot boarding position the terminal is approached from E.

Useful mark:

Jazīreh-ye Sirrī Light (25°54′·3N 54°33′·1E) exhibited from a position on the E coast of the island, 6 cables N of the terminal.

Port services

7.163

1 **Repairs.** No repair facilities.

Other facilities. Emergency medical treatment available; oily waste reception facilities.

Supplies. No fresh water or fuel oil available.

Communications. Airport close NNW of the terminal.

Fateh Oil Terminals

Charts 2442, 3413 plan of Fateh

General information

7.164

1 **Position and function.** Fateh Oil Terminals are situated in the S part of Fateh Oilfield (25°36′N 54°26′E), SSW of Jazīreh-ye Sirrī (7.158); the terminals service the Fateh Oilfield, the SW Fateh Oilfield (25°30′N 54°18′E) and the Falah Oilfield (25°36′N 54°12′E) all of which lie within an extensive triangular-shaped area midway between Şīr Abū Nu‘ayr (25°14′N 54°13′E) and Jazīreh-ye Sirrī, 42 miles NNE; the central production complex, marked by flare towers, stands in its N central part. *Al Wasel,* a floating storage unit is moored near three submerged oil storage tanks off the E side of the complex; the storage tanks rest on the sea bed and are surmounted by a yellow cylindrical tower. See 7.5.

2 **Approach.** The anchorage and pilot boarding position may be approached from E passing S of Sirrī E Oilfield (25°46′N 54°37′E).

Traffic. In 2004, the terminal was used by 48 vessels with a total of 10 801 468 dwt.

Port Authority. Dubai Petroleum Co., PO Box 2222, Dubai, United Arab Emirates.

Limiting conditions

7.165

1 **Controlling depth.** The least depth in the immediate approach to the berth is 35 m; lesser depths lie within the oilfield.

Deepest and longest berth. SBM No 1 is moored in a depth of 44·2 m; No 2 in a depth of 45·7 m.

Density of water is 1·030 g/cm^3.

Maximum size of vessel handled. Both SBM's can handle vessels up to 300 000 dwt (350 000 dwt between May and October by agreement), 365 m in length on a maximum draught of 30·5 m.

Arrival information

7.166

1 **Port operations.** The terminal is closed when weather conditions exceed limits to accept incoming tankers.

Notice of ETA required. Send ETA 72, 24 and 12 hours prior to arrival; confirm when within 60 miles of the terminal; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage. Anchorage may be obtained within the tanker waiting anchorage about 5 miles E of the production complex in depths of between 37 and 52 m; the anchorage is very exposed.

2 **Prohibited anchorage.** Anchorage is prohibited within the limits of the oilfield where many submarine pipelines, both oil and gas, connect the various production platforms; pipelines extend S to the Rashid Oilfield (25°21′·5N 54°29′·1E) and SE to Jebel Ali (7.176); see 1.17.

Pilotage is compulsory; the pilot/berthing master boards in the outer anchorage; see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Berths

7.167

1 Both terminal SBM's are moored within the limits of the Fateh Oilfield; No 1 SBM (lit) (25°34′·8N 54°28′·3E) lies ESE of the main complex; No 2 SBM (lit) (25°35′·3N 54°24′·6E) lies SW.

Port services

7.168

1 **Other facilities.** Emergency medical service available by helicopter to Dubai; no oily waste reception facilities.

Supplies. Fuel oil and fresh water (by barge) available in the anchorage; offshore supply service available from Dubai (7.142).

Communications. Dubai International Airport situated on the mainland about 60 miles ESE of the terminal.

Anchorages and harbours

Charts 2443, 3176, 3409 plan of Şīr Abū Nu‘ayr

Şīr Abū Nu‘ayr

7.169

1 **Description.** Şīr Abū Nu‘ayr (25°14′N 54°13′E), a small island about 36 miles NW of Ra's Ḩanjūrah (7.209) is composed chiefly of small volcanic hills except at its SE end where there is a low sandy plain which terminates in a sandspit. In its centre are many disused ore mines, it is extremely rugged and broken. A fishing harbour, in its SE corner, is entered from E between breakwaters from which lights (lateral) are exhibited; a small airfield is situated close SE of the harbour. A dangerous wreck lies about 8 miles WNW of the island on the E side of Mandous Oilfield (25°17′N 53°57′E).

2 **Hazard.** The spit at the SE corner of Şīr Abū Nu‘ayr is formed by the current flowing SE round the island under the influence of the *shamāl* and is continuously undergoing change; it is therefore advisable to give the spit a wide berth. The charted coastline in the immediate vicinity of the spit should not be implicitly relied on.

Landmarks:

The summit of the island (25°14′·0N 54°12′·8E) rises to 77 m and when viewed from E and SE appears table-topped; a cone-shaped hill, about 4½ cables NW of the summit, rises to 75 m and is easy to identify from seaward; cairns mark several of the island's summits.

3 Castle Rock (25°14′·6N 54°13′·7E) rises to 44 m near the NE end of the island and is easily identified; a rocky knob close SW can be recognised from E and SE.

Anchorage

7.170

1 During a *shamāl* the best anchorage is close inshore on either side of the spit at the SE corner of the island where there is reasonable shelter from the swell. In N or NE winds good anchorage may be obtained W of the spit taking care to avoid the shoal area, with a least depth of 5·2 m, extending 4 cables offshore about 1 mile W of the spit. A submarine cable lands close S of the fishing harbour; four mooring buoys, Compass 1–4, are laid in a line extending W from a position S of the spit.

Chart 3412

Jumayrah Fishing Harbour

7.171

1 **Description.** Jumayrah Fishing Harbour (25°13′N 55°15′E) is entered from NNE; a light (green triangle on beacon) is exhibited from the main breakwater head, other lights are exhibited from a spur (green triangle on beacon) extending W from a knuckle on the main breakwater and also from a short breakwater extending W from the coast about 5 cables SW of the harbour. A Coast Guard station is situated within the harbour. See 7.3.

2 A number of small harbours, or havens, created by boulder breakwaters lie between Dubai Dry Dock and Jumayrah Fishing Harbour; lights (green triangle on beacon) are exhibited from a number of these breakwaters. See 7.3.

Umm as Suqaym

7.172

1 **Description.** Umm as Suqaym I Fishing Harbour (25°10′N 55°13′E) is entered from NNE; a light is exhibited from the main breakwater head and from a spur (green triangle on beacon) extending W from the main breakwater. Dubai Offshore Sailing Club tower and flagstaff stand near the root of the short E breakwater. A dangerous wreck, with a least depth over it of 1·5 m, lies about 1 mile NW of the harbour entrance. Umm as Suqaym II Fishing Harbour is a similar, but smaller harbour, entered from N about 1½ miles SW of Umm as Suqaym I; a fish haven, marked by a light-buoy (N cardinal) (25°09′·7N 55°09′·5E), lies about 2 miles WNW of the harbour within the prohibited area enclosing The World Project (7.129). See 7.3 and 7.14.

Chicago Beach Resort

7.173

1 **Description.** Chicago Beach Resort (25°09′N 55°11′E) is entered from NNE between breakwaters from which lights (lateral) are exhibited; the Chicago Beach Resort Hotel (7.154) is very conspicuous. A radio mast (226 m high, obstruction lights) stands about 1 mile ESE of the harbour. Two smaller harbours are situated close NW of two Sheikh’s Palaces which stand between the resort and Mīnā’ Seyaha (7.174). See 7.3.

Mīnā’ Seyaha

7.174

1 **Description.** Mīnā’ Seyaha (25°05′N 55°09′E), about 7 miles NE of Jebel Ali, is a small harbour entered close S of the Palm Jumeirah Development, see 7.3; a lights is exhibited from the head of the W breakwater.

Khawr Ghanāḑah

7.175

1 **Description.** Khawr Ghanāḑah (24°49′·6N 54°45′·8E), occasionally visited by fishermen, is entered through a narrow and treacherous channel with depths of between 0·1 and 6·7 m with its deepest part about 2 cables S of Ra’s Ghanāḑah; its approach from WNW is obstructed by drying banks and sand patches. Khawr Ghurabī is entered about 3½ miles SW of Khawr Ghanāḑah, the two inlets connect SE in an area liable to flooding.

JEBEL ALI

General information

Charts 3176, 3739

Position

7.176

1 Jebel Ali (Mīnā’ Jabal ‘Ālī) (25°00′N 55°03′E) is situated on the NW coast of the United Arab Emirates.

Function

7.177

1 The port is one of the major industrial complexes of the Middle East; a free trade zone has been established.

Topography

7.178

1 The village of Jebel Ali (25°02′N 55°07′E) stands about 3 miles ENE of the port area on the NW side of Jabal al ‘Ālī (25°01′·8N 55°07′·6E) (7.154).

Port limits

7.179

1 The port limits extend seaward to include the entrance channel and the outer anchorage (7.191).

Approach and entry

7.180

1 Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E) and the pilot boarding area are approached from NW; the port is entered through a channel, marked by light-buoys (lateral); see 7.184.

Traffic

7.181

1 In 2004, the port was used by 4943 vessels with a total of 123 339 869 dwt.

Port Authority

7.182

1 Dubai Ports Authority, PO Box 17000, Dubai, United Arab Emirates.

Development

7.183

1 The Palm Island One, Palm Jumeirah (25°07′N 55°08′E) and Palm Island Two, Palm Jebel Ali (25°02′N 54°59′E) developments lie about 8 miles NNE and close W of Jebel Ali, extending up to 4 miles from the coast; exclusion zones have been established around these areas; see 7.3.

Jebel Ali (7.198)
(Original dated 2002)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

For the latest information contact the port authority and consult the latest *Admiralty Notices to Mariners.*

Limiting conditions

Controlling depth

7.184

1 The entrance channel and outer basin are dredged to 17 m (2005); the port authorities should be consulted for the latest information.

Deepest and longest berth

7.185

1 Quay 7 is about 3·7 km long with least alongside depths of 11·5 m; Berths 16 and 17 have alongside depths of 16 m; see 7.201.

Tidal levels

7.186

1 Mean spring range about 1·2 m; mean neap range about 0·5 m; see *Admiralty Tide Tables Vol 3.*

Density of water

7.187

1 The density of the water is 1·032 g/cm^3.

Maximum size of vessel handled

7.188

1 The port can handle vessels up to 545 000 dwt and up to 414 m in length; see 7.184.

Arrival information

Port operations

7.189

1 In the outer basin tankers are usually berthed starboard side to.

Notice of ETA required

7.190

1 Send ETA 48 and 24 hours prior to arrival, corrected if more than 1 hour in error; contact port control 2 hours before arrival at the pilot boarding area; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

7.191

1 Anchorage may be obtained in an area centred about 3 miles SW of Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E) in depths of between 16 and 20 m; the holding is poor and extra cable is recommended.

Submarine pipelines

7.192

1 Submarine gas pipelines from the Fateh Oilfield (7.164) and Mubarek Oilfield (7.76) land close E of the port area; see 1.17.

Pilotage

7.193

1 Pilotage is compulsory for all vessels of 150 nrt and over and is available day and night (LNG carriers and vessels over 300 m daylight only); the pilot boards in the pilot boarding area centred about 2 miles SE of Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E); see *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.194

1 Tugs are available.

Traffic regulations

7.195

1 **Prohibited areas.** Work is in progress NE of the port on the Palm Island One, Palm Jumeirah project; and W of the

entrance on the Palm Island Two, Palm Jebel Ali project. Entry into these areas is prohibited; see 7.3 and 7.183.

Harbour

General layout

7.196

1 The port consists of an outer basin and two large inner basins; the W limits of the channel through the outer basin and cut are indicated by light-buoys (starboard hand); the N basin is dredged to 14 m (1980) and the S to 11·5 m (1980), see 7.184.

Hazards

7.197

1 **Crossing traffic.** Construction traffic related to Palm Island One, Palm Jumeirah and Palm Island Two, Palm Jebel Ali cross the approach channel in the vicinity of Nos 9 and 10 Light-buoys. See 7.152.

Spoil grounds. A spoil ground lies about 5 miles W of Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E); a light-buoy (special) is moored on the SE side of this area. A second spoil ground, centred about 2½ miles SW of No 6 Light-buoy; less water than charted is reported (1981) over this area.

2 **Radio propagation.** A powerful radio transmitter operates daily from a position about 6 miles WSW of the port, between Ra’s Ḩaşyān (24°57′·9N 54°57′·8E) and Ra’s Ghantūt (5 miles SW). Powerful transmissions in the 1470 to 1490 kHz band are beamed in a 15° spread either side of 280°, fire damage may occur in shipboard equipment as a result of this radio propagation for up to a distance of 4½ miles. Vessels are advised to keep at least 6 miles from the station.

Principal marks

7.198

1 **Landmarks:**

A conspicuous hotel (25°04′·3N 55°07′·6E) stands on the coast about 1½ miles SW of Mīnā’ Seyaha (7.174).

A power station (25°04′N 55°07′E) with eight chimneys (obstruction lights) stands close SW of the conspicuous hotel; a second with twelve chimneys (obstruction lights) stands 9 cables SW. Light-buoys (special) are moored off the coast in this area at the seaward end of cooling water intakes; a light is exhibited from a short pier near the power station.

2 Jebel Ali Port Control Tower (24°59′·5N 55°03′·0E) is a distinctive structure (see diagram on chart), 50 m high, standing on the SW side of the harbour.

Major light:

Aero lights (25°01′·2N 55°04′·5E) are exhibited from flare stacks in a gas refinery close NE of the port area; the refinery tanks are conspicuous.

Other aid to navigation

7.199

1 **Racon:**

Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

7.200

1 From a position NW of Jebel Ali Approach Light-buoy (25°10′·6N 54°52′·3E) the track leads SE, passing:

Clear of Jebel Ali Approach Light-buoy (safe water) and through to the pilot boarding area, thence:

Between No 1 Light-buoys (port and starboard hand) (25°08′·2N 54°55′·0E) marking the seaward end of the entrance channel marked by light-buoys (lateral). Thence:

ENE of Jebel Ali W Breakwater Head (25°01′·2N 55°02′·3E) from which a light (tower) is exhibited, thence:

2 WSW of E Breakwater Head (2¾ cables E) from which a light (tower) is exhibited; No 15 Light-buoy (port hand) is moored close S of the breakwater head. Thence:

Through into the outer basin.

Useful mark:

A conspicuous aluminium smelter, with numerous chimneys, (25°01′·9N 55°05′·5E) stands on the coast about 1¾ miles NE of the port area; a water intake (lit) extends about 2 cables NW from the coast, close SW of the works.

Basins and berths

7.201

1 The outer basin has four tanker berths with alongside depths of 14 m; No 1 Tanker Berth also handles LPG exports and oil products. The N basin, entered from the outer basin through a cut, has three quays with seventeen numbered berths handling oil exports, bulk grain, aluminium imports, timber and containers; all berths have alongside depths of 14 m except Berths 16 and 17 with alongside depths of 16 m. The S basin, entered through a short cut, has six quays numbered 4 to 9, with forty numbered berths, handling general, frozen, chemical and Ro-Ro cargoes; all the berths have alongside depths of 11·5 m. A ship repair yard, situated in a small basin entered from the SW side of the inner basin, has alongside depths of 5·5 and 7 m.

Port services

Repairs

7.202

1 The ship repair yard can undertake engineering repairs; radio and electronic repairs available.

Other facilities

7.203

1 Hospital in Dubai (emergency treatment locally); deratting and exemption certificates issued; garbage reception facilities and use compulsory; no oily waste reception facilities; lay-up berths available for vessels up to 550 000 dwt.

Supplies

7.204

1 Fuel oil and diesel (barge or road tanker); fresh water at all berths; stores and provisions from Dubai.

Communications

7.205

1 Dubai International Airport 20 miles distant.

Hassah Marina

Description

7.206

1 Hassah Marina (24°59′·7N 55°02′·0E), entered from NE between breakwaters, is situated close W of Jebel Ali Port

Home Contents Index

Control Tower (7.198); a light (white tower, red band) is exhibited from the head of the W breakwater. Hassah Palace Hotel stands in the SW part of the marina.

A smaller marina, entered from ENE, lies close WSW of Hassah Marina; a light is exhibited from the head of its outer breakwater; the Jebel Ali Hotel stands on its W side. See 7.197.

ABU DHABI

General information

Charts 3177, 3713, 3715

Position

7.207

1 The island of Abu Dhabi (Abū Z̧aby) (24°29′N 54°22′E) is situated close off the NW coast of the United Arab Emirates.

Function

7.208

1 The city of Abu Dhabi is the capital of the State of Abu Dhabi and the political capital of the United Arab Emirates; it produces the majority of the Emirates oil exports; Mīnā’ Zāyid, the port of Abu Dhabi, is the principal port of the state.

Topography

7.209

1 From Khawr Ganāḏah (24°49′·6N 54°45′·8E) to Abu Dhabi, 30 miles SW, there is a succession of inlets the majority of which are inter-connected; some have deeper water within. The whole area is made up of extensive swamps and backwaters which extend inland for many miles; Ra’s Ḩanjūrah (24°44′·4N 54°38′·2E) forms its N extremity.

Port limits

7.210

1 The port limits extend seaward to Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E) and include all the entrance channel.

Approach and entry

7.211

1 Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E) is approached from NNE; several detached shoals, with depths of less than 10 m over them, lie in the approaches and large parts of the area are not fully surveyed. From Abu Dhabi Fairway Light-buoy, moored 8 cables S of Abu Dhabi Light-buoy, the track leads SE through the entrance channel, marked by light-buoys (lateral), which leads over the SW part of Ḩadd aţ Ţallah (24°42′N 54°31′E), an extensive offshore reef, to the pilot boarding position; the channel then continues through to Mīnā’ Zāyid.

Traffic

7.212

1 In 2004, the port was used by 954 vessels with a total of 13 191 803 dwt.

Port Authority

7.213

1 Abu Dhabi Seaport Authority, PO Box 422, Abu Dhabi, United Arab Emirates.

Limiting conditions

Controlling depth

7.214

1 Both the entrance channel and Mīnā’ Zāyid Basin (7.227) are dredged to 15 m (2001); the channels through Khawr al Bighāl, Khawr Laffān and Khawr al Maqţa‘, which lead to Umm an Nār Refinery (7.243), are dredged to 11 m (1983).

Deepest and longest berth

7.215

1 The quay on the NE side of the basin is just over 1 km in length, with alongside depths of 15 m. See 7.236.

Tidal levels

7.216

1 Mean spring range about 1·4 m; mean neap range about 0·4 m; see *Admiralty Tide Tables Vol 3.*

Density of water

7.217

1 The density of the water is 1·025–1·030 g/cm^3.

Maximum size of vessel handled

7.218

1 Vessels up to 269 m in length on a maximum draught of 12·5 m; 14 m at the container terminal.

Arrival information

Vessel Traffic Service

7.219

1 A traffic reporting system is operation for Abu Dhabi. See *Admiralty List of Radio Signals Volume 6 (3).*

Port radio

7.220

1 Abu Dhabi Radio controls the operations for the ports of Mīnā’ Zāyid and Umm an Nār Refinery (7.243).

See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

7.221

1 Send ETA 72, 48 and 24 hours prior to arrival; vessels should confirm ETA on VHF with port control 6 hours and 2 hours before arrival at the anchorage.

See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

7.222

1 Anchorage may be obtained within the designated anchorage SSW of Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E); the holding is reported fairly good, but plenty of cable is recommended as the *shamāl*, which blows in this vicinity between N and NW, can rise suddenly with great force. Vessels with a draught exceeding 9·5 m may anchor about 1 mile NE of Abu Dhabi Light-buoy; vessels with a draught of less than 9·5 m may anchor about 9 cables SW of Z 11 Light-buoy (24°35′·7N 54°18′·9E).

Submarine pipeline and cables

7.223

1 Submarine cables are laid W from Abu Dhabi seafront, passing SW of Corniche (Lulu) Island where they diverge; one cable extends NNW to pass under the main channel between Z 1 and Z 3 light-buoys.

A submarine pipeline extends NW from Abu Dhabi Island passing SW of Dhow Harbour and Fishing Harbour towards the NE end of Corniche Island (24°30′N 54°21′E); see 1.17.

Pilotage

7.224

1 Pilotage is compulsory and available day and night; pilot normally boards in the channel NW of Z 17 and Z 18 Light-buoys; pilots will board in the vicinity of Abu Dhabi Fairway Light-buoy on request.

See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.225

1 Tugs are available.

Local knowledge

7.226

1 A sharp curve in the channel leads into the harbour; due allowance must be made for the effects of a strong set across the fairway; see 7.230.

Harbour

General layout

7.227

1 Mīnā’ Zāyid Basin is entered W of the outer end of Khawr al Bighāl (7.243); Umm an Nār Refinery (7.243), Sea Wing Access Channel (7.248) and South Basin (7.490) are all approached E of Mīnā’ Zāyid through Khawr al Bighāl. Dhow Harbour is a small basin SW of Mīnā’ Zāyid with a fishing boat harbour close SE.

Hazard

7.228

1 The buoyage in this area should conform to IALA Maritime Buoyage System – Region A, but mariners are warned that some buoys and beacons may not conform to this system.

Development

7.229

1 An offshore area is being reclaimed (2001) immediately NW of Mīnā’ Zāyid; Corniche (Lulu) Island (24°30′N 54°21′E), an artificial island protected by an off-lying breakwater, is under development SSW.

Natural conditions

7.230

1 **Tidal streams** within the entrance to Mīnā’ Zāyid and Khawr al Bighāl, and particularly at the sharp curve in the channel, are strong and are reported to attain a rate of up to 4½ kn; slack water occurs 1½ hours after both HW and LW. Outside the harbour the streams follow the line of the coast at rates not normally exceeding 1 kn; see 7.226.

Climatic table. See 1.145 and 1.157.

Principal marks

7.231

1 **Landmarks:**

A group of silos (69 m high) (24°32′·2N 54°23′·1E) stand on the quay on the W side of the entrance to Mīnā’ Zāyid; a light is exhibited from one of the silos.

Prominent water tanks stand on the E end of Jazīrat as Sa‘dīyāt about 6 cables NE of Ra’s Laffān (24°31′·4N 54°24′·5E).

A blue hotel, topped by a white ball, (24°29′·0N 54°21′·0E) (obstruction lights); a second similar hotel stands about 1¼ miles NE (white obstruction lights).

2 A 103 m high radio mast (obstruction lights) (24°27′·9N 54°19′·9E) stands near Abu Dhabi seafront about 1½ miles NE of Ra’s al Baţīn.

Major light:

Mīnā’ Zāyid W Breakwater Head Light (black column, white bands; 6 m high) (24°32′·4N 54°23′·1E).

Other aid to navigation

7.232

1 **Racon:**

Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

Approach

7.233

1 From a position NNE of Abu Dhabi Light-buoy (24°40′·1N 54°14′·1E) the entrance channel is approached, passing (with reference to Abu Dhabi Light-buoy):

WNW of a shoal patch (6 miles ENE) with a least depth of 8·4 m; and a further patch, with a least depth of 7·2 m, 1½ miles SW. Thence:

WNW of a shoal patch (3½ miles E) with a least depth of 8·1 m, thence:

ESE of Abu Dhabi Light-buoy (safe water), thence:

Clear of Abu Dhabi Fairway Light-buoy (safe water) (8 cables S).

Entrance channel

7.234

1 The track continues SE, passing (with reference to Abu Dhabi Fairway Light-buoy (24°39′·3N 54°14′·2E)):

Between Z 1 and Z 2 Light-buoys (port and starboard hand) (7 cables SE) and through the 255 m wide channel, marked by light-buoys (lateral), thence:

Between Z 15 and Z 16 Light-buoys (port and starboard hand) (7¼ miles SE) and through to the pilot boarding position.

2 **Useful marks:**

Umm Ad Dalkh Oilfield Central Production Complex (24°37′N 54°09′E) occupies the W approaches to Mīnā’ Zāyid in which are numerous production platforms, wellheads and obstructions, many inter-connected by submarine pipelines; a submarine pipeline also connects the oilfield with the Zaqqūm Oilfield (24°50′N 53°37′E). The limits of the oilfield are marked by light-buoys (special); see 7.5.

AD Delta Light-buoy (isolated danger) (24°37′·8N 54°14′·9E) is moored on the SW part of a detached shoal area, with a least depth of 7·7 m, about 1 mile SSE of the NW end of the channel.

3 Light-buoy (isolated danger) (24°35′·2N 54°21′·1E) marking a detached shoal, with a least depth of 5 m.

A light-buoy (red and white conical) (24°33′·2N 54°19′·6E) moored on the N side of a wreck, with a least depth over it of 4·9 m, about 1½ miles SSW of Z 15 Light-buoy.

Mīnā’ Zāyid

7.235

1 From the pilot boarding position the track continues 2¾ miles SE to a position N of Mīnā’ Zāyid W Breakwater Head Light (24°32′·4N 54°23′·1E) where the main channel turns sharply SW, see 7.226, passing:

NW of Jazīrat As Sa‘dīyāt E Breakwater Head (24°32′·4N 54°23′·6E) from which a light is exhibited, thence:

NW of the entrance to Khawr al Bighāl (7.243), thence:

2 W of the short breakwater (24°31′·9N 54°23′·4E), forming the SE side of the entrance to Mīnā’ Zāyid, from which a light is exhibited, and through into the main basin.

Basins and berths

7.236

1 The main basin has twenty five numbered berths on six quays; a smaller basin is entered from its NW corner. The container terminal is in its SW part and a Ro-Ro berth at its NW end; Tanker Berths 21 and 20 are situated at the SE end of the basin. A light-buoy (port hand) is moored off the NW end of Berth 25 indicating the extent of shoal water.

Port services

Repairs

7.237

1 Repair facilities are available; shiplift up to 500 tonnes capacity.

Other facilities

7.238

1 Hospital; deratting and exemption certificates issued; marine hoists up to 500 tonnes capacity; mobile cranes.

Supplies

7.239

1 Fuel oil available (barge or road tanker); fresh water at most alongside berths (13–19 by barge or road tanker); provisions; stores.

Communications

7.240

1 Abu Dhabi International Airport is situated close ESE of the port.

Harbour regulations

7.241

1 Vessels calling at Abu Dhabi should fly the flag of the United Arab Emirates, not the flag of the State of Abu Dhabi.

Dhow Harbour

General information

7.242

1 **Description.** Dhow Harbour (24°31′N 54°22′E) is a small basin, dredged to 6 m (1979), entered SW of Mīnā’ Zāyid; a fishing boat harbour, dredged to 4 m (1989), is entered close SE. The harbour is a free port used by traditional Arab dhows for trade with other ports in the Persian Gulf.

Approach. The harbour is approached from the vicinity of FD 1 Light-buoy (24°32′·6N 54°20′·8E) through a channel, marked by light-buoys and light-beacons (lateral); passing ENE of the N end of Corniche Island (7.229), from which a light is exhibited; lights are also exhibited from the NW elbow and SW corner of the breakwater on the E side of the channel.

2 **Supplies.** Fuel oil available.

Umm an Nār Refinery

General information

7.243

1 **Position and function.** Umm an Nār Refinery (24°27′N 54°30′E) is situated E of Abu Dhabi on an island within an area of other low lying islands and extensive sand and coral flats; North Basin handles the products of the oil refinery.

Topography. Khawr al Bighāl, the main entry channel, separates into several arms leading between some very low-lying islands which are liable to extensive flooding even during normal spring tides, or as a result of NW gales.

Port limits include both North and South Basins.

2 **Approach and entry.** From Mīnā’ Zāyid, the channel, 160 m wide and marked by light-buoys (lateral), leads through Khawr al Bighāl, Khawr Laffān and Khawr al Maqţa‘.

Traffic. See 7.212.

Port Authority. Petroleum Ports Authority ADNOC, PO Box 898, Abu Dhabi, United Arab Emirates. See also 7.213.

Limiting conditions

7.244

1 **Controlling depth.** The main channel is dredged to 11 m (1983); a side channel, dredged to 7 m (1980), leads from the N part of Khawr al Maqţa‘, passing W of the refinery, to South Basin.

Vertical clearance. An overhead power cable, vertical clearance of 60 m, spans both Khawr al Bighāl and Sea Wing Access Channel, passing N of Jazīrat Umm Ash‘ūm (24°29′·6N 54°23′·9E); lights are exhibited from the supporting pylons. A power cable, vertical clearance of 60 m, spans the side channel to South Basin close S of W 8 and W 7 Light-buoys; see 7.251.

2 **Tidal levels.** Mean spring range about 0·9 m; mean neap range about 0·3 m; see *Admiralty Tide Tables Vol 3.*

Density of water is 1·027 g/cm^3.

Maximum size of vessel handled. The port can handle vessels up 30 000 dwt, 170 m in length, on a maximum draught of 9·25 m.

Arrival information

7.245

1 **Port radio.** See 7.220 and *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required. See 7.221 and *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. See 7.222.

2 **Submarine cables and pipelines.** Submarine gas pipelines lead from the refinery across Jazīrat as Sammālīyah to Khawr Laffān; they then follow along a line N of the dredged channel through Khawr Laffān and Khawr al Bighāl, re-crossing the channel N of Jazīrat Umm Ash‘ūm to land in the vicinity of the power station SSW of Mīnā’ Zāyid; see 1.17.

A submarine water pipeline, with a power cable close N, cross Khawr al Bighāl from Jazīrat As Sa‘dīyāt to Mīnā’ Zāyid, S of Ra’s Laffān (24°31′·4N 54°24′·5E).

Pilotage. Daylight only; see 7.224 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Harbour

7.246

1 **General layout.** Abu Dhabi National Oil Company (ADNCO) Complex is situated in North Basin and consists

of two berths, with mooring and breasting dolphins, used for the export of petroleum products; lights are exhibited from the berths; the dredged area within the basin is indicated by light-beacons.

South Basin, dredged to 7 m, is situated off the S side of the refinery and is approached through Khawr al Maqţa‘; a short pier extends W from the E side of the basin. A quay, for power station use, is situated on the S side of the refinery close WNW of the basin.

2 **Development.** A bridge is under construction (1987) from Abu Dhabi Island to Umm an Nār Refinery, in the vicinity of the overhead power cable (7.244).

Tidal stream. The in-going stream follows the line of the main channel at rates of up to 1 kn; the out-going stream again follows the channel, but can attain a rate of 2 kn at its outer end, NE of Jazīrat Umm Ash‘ūm.

Landmark:

A building (24°28′·1N 54°28′·7E) stands on a small islet on the WNW side of Khawr al Maqţa‘, S of Jazīrat Bālrimayd.

Directions for entering harbour

7.247

1 From a position in the main channel (7.235) the track leads SE passing SW of Z 30 Light-buoy (port hand); see 7.219. The channel through Khawr al Bighāl, marked by light-buoys (lateral), passes under an overhead power cable (7.244) then leads NE of Jazīrat Umm Ash‘ūm and SW of Jazīrat Ḩālat Khamīs; it continues ESE to the W end of Khawr Laffān, passing NNE of Jazīrat Qaşşār at Tuwayt and SSW of Jazīrat Muwasham, an island divided by a dredged channel; it continues around Jazīrat Bālrimayd to enter Khawr al Maqţa‘ which leads through to North Basin.

Side channels

7.248

1 A side channel, dredged to 7 m and marked by light-buoys (lateral), leads SSW from SE of Jazīrat Bālrimayd through Khawr al Maqţa‘ to South Basin. A second channel, dredged to 4 m and marked by light-buoys (lateral), leads ESE from the E side of Khawr al Maqţa‘ passing between Umm an Nār Refinery Island and Jazīrat as Sammālīyah.

2 Sea Wing Access Channel (24°30′·0N 54°23′·6E), dredged to 4·9 m (1994), leads S from the SW side of Khawr al Bighāl (7.243), passing W of Jazīrat Umm Ash‘ūm, through to Sea House Channel (24°28′·9N 54°24′·0E) an area of quays, wharfs and piers dredged to 5 m (1977). The channel continues SE through to a junction with other channels in an area of low-lying islands, islets and sand and coral flats; North Peripheral Channel (24°27′·4N 54°27′·3E) leads from this junction through to the W side of Khawr al Maqţa‘ (7.246).

Port services

7.249

1 **Repairs.** See 7.237.

Other facilities. No oily waste reception facilities; see 7.238.

Supplies. No fresh water or fuel oil available; no stores or provisions can be embarked at the berth, but may be received at the anchorage.

Communications. See 7.240.

Khawr al Baţīn

General information

7.250

1 **Position.** Khawr al Baţīn (24°27′N 54°20′E) extends along the whole of the SSE side of Abu Dhabi Island.

Port limits. Khawr al Baţīn lies within the port limits of Abu Dhabi; see 7.210.

Approach and entry. Khawr al Baţīn is approached from N, passing clear of Khawr al Baţīn FD 2 Fairway Light-buoy (safe water) (24°29′·2N 54°18′·0E); and entered passing E of the breakwater extending N from Musnouah Island and W of and area of works in progress (2001) SW of Corniche Island.

Port Authority. See 7.213.

Limiting conditions

7.251

1 **Controlling depth.** The channel is dredged to a depth of 6 m (1983), but depths of less than 5 m lie in the vicinity of FD 2 Light-buoy; less water has been reported (1998) in the harbour entrance.

Vertical clearance. The S end of Khawr al Maqţa‘, between Khawr al Baţīn and Umm an Nār Refinery (7.243), is spanned by two bridges. Al Ain Bridge, the S bridge, has a vertical clearance of 9·4 m and Al Maqţa‘ Bridge, the N bridge, of 5·1 m.

Arrival information

7.252

1 **Port radio.** See 7.220 and *Admiralty List of Radio Signals Volume 6 (3).*

Submarine cables and pipelines. A submarine pipeline and a power cable cross Khawr al Maqţa‘ close S of Al Maqţa‘ Bridge; see 1.17.

Directions for entering harbour

7.253

1 **Approach.** From a position NW of Corniche Island (7.229), the track leads S passing clear of Khawr al Baţīn FD 2 Fairway Light-buoy (safe water) (24°29′·2N 54°18′·0E).

Entry. Khawr al Baţīn is entered passing E of Musnouah Island Breakwater Head from which Khawr al Baţīn W Light (beacon) (24°28′·6N 54°18′·0E) is exhibited; the channel, marked by light-buoys (lateral), then leads through Khawr al Baţīn to Khawr Qirqishān and the Al Mossafah Industrial Area.

2 **Useful mark:**

Khawr al Baţīn E Breakwater Head Light (beacon) (24°28′·1N 54°18′·2E).

Basins and berths

7.254

1 Khawr al Baţīn extends generally ESE through to Khawr Qirqishān, an extensive backwater of low-lying islands and sand flats, through to Al Mossafah Industrial Area which is bordered on its W side by Khawr Qirqishān and on its N and S by channels and basins. Two basins on the S side of Abu Dhabi Island, dredged to 4 m, are entered from the N side of Khawr al Baţīn.

Development. Extensive development is being carried out in Khawr al Baţīn and Khawr Qirqishān.

Port services

7.255

1 See 7.237.

ABŪ ẒABY TO JABAL AẒ ẒANNAH INCLUDING OFFSHORE OILFIELDS AND TERMINALS

GENERAL INFORMATION

Chart 2889

Area covered

7.256

1 This section describes the ports, terminals and their approaches between Abu Dhabi (24°29′N 54°22′E) and Jabal Aẓ Ẓannah, 100 miles WSW; it is arranged as follows:

Dās Deep Water Approach Channel (7.259).
Zaqqūm Channel (7.273).
Jabal Aẓ Ẓannah and Ar Ru'ays (7.300).

Topography

7.257

1 The shore in this part of Persian Gulf is low and either sandy or stony, occasionally interspersed with moderately high hills of rock or sand showing few distinctive features; the area is, for the most part, barren and desolate. With the exception of Ar Ru'ays (7.300) there are neither villages nor permanent habitation between Abu Dhabi (24°29′N 54°22′E) and Mesaieed, 150 miles WNW, though Bedouin visit the area. Many low islands lie on reefs between 10 and 30 miles offshore; some are of considerable size and overgrown with mangroves; a few are seasonally inhabited.

2 The coastline for 30 miles SW of Abu Dhabi is formed by a number of low islets, with interconnecting creeks between, thus detaching them from the mainland; all the creeks are reported to have shallow entrances and greater depths inside. The land is a stony desert with small detached groups of volcanic hills; on the coast there are sand dunes or low cliffs. Shalīl al 'Ūd (24°25′N 54°17′E) is a deep water channel, with a bar depth of 2·1 m, which passes N of Jazīrat al Fuţaysī and gives access to Khawr Qirqishān (7.254), and by dredged channels to Khawr al Baţīn (7.250); the sandbanks in the channel are continually changing and it should be approached with caution.

3 Between Ra's al Kahf (24°18′N 54°05′E), a remarkable, 11 m high, flat-topped cliff with the appearance of the bows of a ship and the E end of Jazīrat Abū al Abyaḑ, 10 miles SW, lies an area of islands and creeks, all fringed by a reef; Khawr Qanţūr leads through this area. Bazam is the collective name for a chain of islands along the S edge of the extensive drying reef of Fasht al Bazam which forms the N side of Khawr al Bazam (7.283). Jazīrat Abū al Abyaḑ (24°11′N 53°48′E) is the E and largest of the islands on the reef; in its W part there are low sandhills terminating at Ra's Muqayshiţ, its W extremity.

Tidal streams

7.258

1 Tidal streams are reported in places to be strong, particularly round points of islands, in narrow channels and between reefs.

DĀS DEEP WATER CHANNEL

General information

Charts 2889, 2444

Route

7.259

1 From a position about 30 miles W of Jazīreh-ye Sirrī (25°55′N 54°31′E) the route initially leads SW for 43 miles to the vicinity of Dās Deep Water Channel Approach Light-buoy (25°27′·1N 53°20′·6E); it continues 28 miles SW through Dās Deep Water Channel to a position NNE of Jazīrat Dās (25°09′N 52°52′E). The channel is primarily intended for use by loaded tankers sailing from Jazīrat Dās (7.263); arriving vessels should only use this route if draught does not permit use of Zaqqūm Channel (7.279) and with the agreement of the port authorities.

Directions

Approach

7.260

1 From a position W of Jazīreh-ye Sirrī (25°55′N 54°31′E) (7.158) the track leads SW, passing:

NW of Sirrī A Oilfield (25°46′N 54°05′E); see 7.5. Thence:
NW of a dangerous wreck (25°28′·9N 53°30′·3E); an area where tidal overfalls occur lies 8 miles ENE of the wreck. Thence:
NW of a shoal (25°23′·0N 53°28′·0E) with a least depth of 20 m, thence:
2 NW of Dās Channel Approach Light-buoy (safe water) (25°27′·1N 53°20′·6E), thence:
NW of No 2 Light-buoy (port hand) (25°24′·8N 53°17′·2E), thence:
SE of Salman Oilfield (25°32′N 53°09′E) (see 7.5) and:
NW of Nasr Oilfield (25°43′N 54°14′E) (see 7.5).

Dās Deep Water Channel

7.261

1 The track continues SW through Dās Deep Water Channel, marked by light-buoys (lateral), passing:

SE of Abū al Bū Khoosh Oilfield (25°29′N 53°08′E) (7.262), thence:
NW of the light-buoy (N cardinal) (25°20′·4N 53°09′·0E) moored close N of a wreck, with a least depth over it of 4·3 m, lying on the NNW edge of the restricted area surrounding Umm Shaif Oilfield (25°12′N 53°13′E), thence:
2 NW of No 6 Light-buoy (W cardinal) (25°13′·1N 52°58′·6E) marking the N end of Jazīrat Zarakkūh departure route (7.289), thence:
SE of Bul Handine (25°15′N 52°54′E), a shoal bank with a least depth of 15·5 m, thence:
NW of No 12 Light-buoy (25°11′·3N 52°55′·1E) (port hand) moored in the vicinity of the optional deep water anchorage (7.265), thence:
S of Flare Light-buoy (starboard hand) (25°11′·6N 52°52′·3E) moored between the N end of Jazīrat Dās and Bul Handine; several flare towers (7.266) stand 7 cables N of Jazīrat Dās.

(directions continue at 7.267)

Abū al Bū Khoosh Oil Terminal

Chart 2444 and plan of Abū al Bū Khoosh Oil Loading Terminal

General information

7.262

1 **Position and function.** Abū al Bū Khoosh Oil Terminal (25°29′N 53°08′E) is situated 24 miles NE of Jazīrat Dās, close S of the Salman Oilfield; the terminal serviced the Abū al Bū Khoosh Oilfield, but ceased operations in January 2003; the floating storage unit has been removed, but the SBM is still in position.

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Port Authority. Abū al Bū Khoosh, PO Box 4058, Abu Dhabi, United Arab Emirates.

Anchorage may be obtained in a depth of about 34 m in a circular area 3 miles WSW of the terminal; the holding ground of sand and coral is poor; vessels are advised to leave the anchorage if the wind speed exceeds 35 kn.

2 **Submarine pipelines** connect the terminal with the numerous production platforms; see 1.17.

Restricted area. Abū al Bū Khoosh Oilfield contains numerous production platforms, well heads and other structures all enclosed in a restricted area. Only authorised vessels, or those under pilotage, may enter this area; see 7.5.

Jazīrat Dās Terminals

Charts 2444, 3413 plan of approaches to Jazīrat Dās

General information

7.263

1 **Position and function.** Jazīrat Dās Terminals (25°09′N 52°54′E) are all situated on the E side of Jazīrat Dās and are used for the export of crude oil, sulphur, and natural gas from the El Bunduq (25°06′N 52°37′E), Zaqqūm and Umm Shaif Oilfields; the island is also a base for offshore drilling operations.

Topography. Jazīrat Dās is low in the S, but rises to an elevation of 40 m in its NW part.

Port limits. An area surrounding the island is under the control of the Port of Jazīrat Dās.

2 **Approach.** Zaqqūm Channel (7.279) is the normal approach and is the recommended arrival route; tankers may approach Jazīrat Dās, by prior agreement, through Jazīrat Dās Deep Water Channel (7.260) if their draught is such that the S route cannot be used with safety.

Traffic. In 2004, the port was used by 311 vessels with a total of 53 862 390 dwt.

Port Authority. Abu Dhabi National Oil Company (ADNOC), Petroleum Ports Authority, PO Box 898, Dās Island, Abu Dhabi, United Arab Emirates.

Limiting conditions

7.264

1 **Controlling depth.** There is a least depth in Jazīrat Dās Deep Water Channel of 25 m; see 7.274.

Deepest berth. Loading Berth 3 is moored in a depth of 28 m.

Tidal levels. Mean spring range about 1·2 m; mean neap range about 0·6 m; the tide is usually diurnal. See *Admiralty Tide Tables Vol 3.*

Density of water is 1·027 g/cm^3.

Maximum size of vessel handled. Oil Loading Berth 3 can handle vessels up to 500 000 dwt.

Arrival information

7.265

1 **Notice of ETA required.** Send ETA 72, 48 and 24 hours prior to arrival; confirm with port radio 4 hours before arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Anchorages. The main anchorage area is centred about 5 miles SE of the S end of Jazīrat Dās; the NE and NW corners are marked by light-buoys (special). An optional deep water anchorage is centred about 3 miles NNE of the N end of the island. Anchorage for general cargo vessels, in depths of about 13 m, lies SE of the island about 6 cables SE of the traffic signal station (7.266); caution is necessary when approaching this anchorage as depths decrease rapidly. Arrived vessels awaiting instructions will be advised by the port radio of the most suitable anchorage and should maintain a listening watch on VHF. The island affords little shelter during a *shamāl* and much swell will probably be experienced offshore; the holding ground is poor, mainly loose sand over rock, plenty of cable is recommended. Landing may be effected in the boat harbour (7.272); and at boat landing close S of the root of the Oil Terminal Loading Berth 3 (7.270).

2 **Prohibited anchorage.** Vessels, other than those calling at Jazīrat Dās, are prohibited from anchoring within the port limits; anchoring within the vicinity of submarine pipelines is prohibited.

Submarine pipelines. Various oil and gas submarine pipelines, best seen on the chart, are laid between the island and offshore oilfields, installations and berths. An area, in which anchoring and fishing are prohibited, encloses the submarine pipelines which land on the E side of the island. A submarine pipeline cross-over point lies in 25°08′·5N 52°59′·3E; depths in this vicinity may be reduced by up to 3·2 m; see 1.17.

3 **Pilotage** is compulsory for all vessels; pilot boards about 2 miles E of SBM Berth 3; vessels arriving from N may be boarded by arrangement. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Restricted area. A restricted area encloses the N part of the island, the flare platforms and the loading berths; access is only permitted to authorised vessels.

4 **Regulations concerning entry.** Navigation off the E side of the island is restricted to vessels using the terminals; vessels leaving the Dās Deep Water Approach Channel (7.259) and proceeding to the anchorage must not pass closer than 2 miles to the island and not without prior permission from port control; keeping well clear of any manoeuvring vessels.

If approaching the island from W a vessel should keep at least 4 miles W and 5 miles S of the island before proceeding to the anchorage or pilot boarding position.

Harbour

7.266

1 **General layout.** The main facilities are situated on the E side of the island in an area of generally deep water between the island and Umm Shaif Oilfield (25°12′N 53°13′E). No 9 Light-buoy (starboard hand) (25°09′·9N 52°54′·2E) is moored in the NE approaches, about 1¼ miles E of the NE corner of the island. Jazīrat Dās Signal Station (25°08′·3N 52°53′·0E) stands on the E breakwater head of Jazīrat Dās Boat Harbour (7.272). A spoil ground area is centred about 1 mile SW of the SW corner of the island. See also 7.287.

2 **Landmarks:**

Oil flares burn on the N shore of Jazīrat Dās and from the end of a small jetty; a semi-circle of flare platforms, centred on a central collecting platform, lie close off the N shore, the E flare is normally permanently lit.

A radio tower (red and white, 82 m high, obstruction lights) (25°08′·6N 52°52′·8E) stands on the S part of the island.

Directions for entering harbour

7.267

1 **North.** From the vicinity of Flare Light-buoy (starboard hand) (25°11′·6N 52°52′·3E), the usual track leads W of Jazīrat Dās, passing W of a light tower (monopod) (25°08′·5N 52°48′·5E) standing at the seaward end of a outfall pipe, and S of a dangerous wreck (25°04′·8N 52°52′·1E) and South Shoal Light-buoy (S cardinal), 1 mile

Home Contents Index

SE, marking shoal water extending S from the island. The track continues, passing N of the restricted area surrounding a production platform (25°01′·8N 52°55′·7E), through to the main anchorage and pilot boarding position. Vessels may only pass E of the island by permission of the port authority.

2 **Useful mark:**

Two light-buoys (special) (25°09′N 52°51′E) moored close W of diffusers on the seabed, laid off the W side of the island.

7.268

1 **South.** From the vicinity of Zaqqūm West Light-buoy (safe water) (24°56′·7N 52°59′·9E) the main anchorage and pilot boarding position may be approached passing clear of the light-buoy (isolated danger) (25°00′·0N 52°57′·2E), marking a wellhead with a least depth over it of 15 m; and clear of the restricted areas surrounding a production platform (25°01′·8N 52°55′·7E) and Jazīrat Zarakkūh Oil Loading Terminals (7.284), 3½ miles ESE. Less water than charted (1988) lies SW of the production platform.

2 **Useful mark:**

CC–111 Light-buoy (isolated danger) (24°58′·3N 52°53′·8E) moored close S of an obstruction with a safe clearance depth of 15 m.

Directions for leaving harbour

7.269

1 Jazīrat Dās Deep Water Channel (7.260) is the primary route for loaded vessels departing the terminals. See 7.289.

Chart 3413 plan of Jazīrat Dās

Berths

7.270

1 **Oil Terminal 2** off the E side of the S end of the island and can handle vessels up to 165 000 dwt, 350 m in length, on a maximum draught of 13·7 m. The berth consists of a loading platform, four breasting dolphins and mooring dolphins N and S. Light-buoys (orange) are moored near the 10 m contour close W and SSW of the berth; lights (fixed) are exhibited from the berth.

Oil Terminal 3 is a SBM, within a restricted area, moored about 1¼ miles E of the E side of the island. The buoy can handle vessels up to 500 000 dwt on a maximum draught of 24 m; a light is exhibited from the buoy.

2 **LPG/LNG Berth 4** off the N end of the E side of the island and consists of two berths at the seaward end of a jetty with associated mooring dolphins. The S berth is used for the export of liquid petroleum gas, the N for pelleted sulphur; lights are exhibited from the berth. Construction Jetty is situated close N of the root of the LPG/LNG jetty.

Sulphur Berth 5 lies off the middle of the E side of the island and consists of a platform, with mooring dolphins N and S, joined by a trestle jetty to the shore; a buoy (special) is moored close N of the berth, lights are exhibited from the mooring dolphins N and S.

Port services

7.271

1 **Repairs.** No repair facilities.

Other facilities. Small hospital available on request; no oily waste reception facilities.

Supplies. Fresh water not available in large quantity; fuel oils at loading berths; stores not available.

Jazīrat Dās Harbour

7.272

1 **General information.** The harbour (25°08′N 52°53′E) is entered, through a 61 m wide entrance, between two stone and rubble breakwaters extending SE from the SE corner of the island; three main berths, with alongside depths of about 2·7 m, lie along the S breakwater; the middle berth consists of a concrete wharf, but those on each side are of square concrete dolphins; further berthing lies on the N side of the harbour and a coastal tanker berth on the inner side of the outer end of the E breakwater.

2 **Traffic and storm signals.** Three red balls by day or three flashing red lights at night exhibited from a signal mast near the traffic signal station (7.266) indicate the harbour is closed; no unauthorised craft may enter. A storm signal consisting of a cone, apex up or down, is displayed from the signal station.

Prohibited anchorage. Anchorage is prohibited in an area enclosing the harbour and its approaches.

Facilities. Mobile cranes.

Supplies. Limited amounts of fresh water.

ZAQQŪM CHANNEL

General information

Charts 2889, 2443, 2444

Route

7.273

1 From a position about 30 miles W of Jazīreh-ye Sirrī (25°55′N 54°31′E) the route initially leads SSW for 56 miles to the vicinity of Zaqqūm Channel Approach Light-buoy (25°06′·6N 53°25′·0E), it then continues 26 miles WSW through Zaqqūm Channel TSS (7.275) to Zaqqūm West Light-buoy (24°56′·7N 52°59′·9E). The route to Jabal Aẓ Ẓannah (7.332) and Ar Ru'ays (7.333) continues, initially SSW, to the vicinity of Jabal Aẓ Ẓannah and Ar Ru'ays Outer Fairway Light-buoy (24°45′·9N 52°53′·2E) moored at the outer end of the recommended approach track (7.328) which leads to Ghashā Light-buoy (24°25′·9N 52°34′·4E) and the pilot boarding position.

Depths

7.274

1 Depths in Zaqqūm Channel are mostly over 20 m; but note the wellhead (25°00′·0N 53°14′·4E), with a safe clearance depth over it of 16 m, in the E bound lane of the TSS; see 7.264.

Traffic separation scheme

7.275

1 Zaqqūm Channel Traffic Separation Scheme has been established to pass between Zaqqūm Oilfield (24°50′N 53°37′E) and Umm Shaif Oilfield (25°12′N 53°13′E) for shipping bound for Jazīrat Dās Terminals (7.263), Jazīrat Zarakkūh Oil Terminal (7.284), Jabal Aẓ Ẓannah (7.332) or Ar Ru'ays (7.333).

The traffic separation scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See the *Annual Summary of Admiralty Notices to Mariners.*

Principal mark

7.276

1 **Major light:**

Jazīrat Zarakkūh Light (24°53′·1N 53°04′·2E) exhibited from the NE corner of a radio mast

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standing on Jazīrat Zarakkūh (7.284); flare stacks, (red obstruction lights) also stand on the island.

Other aids to navigation

7.277

1 **Racons:**

Zaqqūm Fairway Light-buoy (25°06′·6N 53°25′·0E).
Jazīrat Zarakkūh (24°53′·1N 53°04′·2E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

Approach

7.278

1 From a position W of Jazīreh-ye Sirrī (25°55′N 54°31′E) (7.158) the track leads SSW, passing:

WNW of Sirrī A Oilfield (25°46′N 54°05′E), thence:
ESE of a dangerous wreck (25°28′·9N 53°30′·3E) (7.260), thence:
ESE of a shoal (25°23′·0N 53°28′·0E) with a least depth of 20 m lying within the Nasr Oilfield, thence:
2 WNW of a shoal (25°15′·8N 53°37′·6E) with a least depth of 18·8 m, thence:
ESE of NS–7 production platform (25°18′·9N 53°28′·0E) standing in the middle part of Nasr Oilfield; see 7.5. Thence:
WNW of an area of shoals (25°09′·5N 53°37′·2E) with a least depth of 18·2 m.

Charts 2444, 3178, 3179

Zaqqūm Channel

7.279

1 The track continues, generally WSW, through Zaqqūm Channel TSS, passing:

NW of Zaqqūm Fairway Light-buoy (safe water) (25°06′·6N 53°25′·0E), thence:
SE of Umm Shaif Oilfield (25°12′N 53°13′E), thence:
NNW of Zaqqūm East Light-buoy (safe water) (25°02′·4N 53′19′·6E), thence:
NNW of Mubarraz Approach Light-buoy (port hand) (24°57′·3N 53°18′·4E) moored in the approach to Mubarras Oil Loading Terminal (7.76); note the wellhead, with a safe clearance depth over it of 16 m, which lies in this vicinity in the middle of the ENE bound lane of the TSS. Thence:
2 SSE of the light-buoy (S cardinal) (25°01′·8N 53°09′·8E) moored close S of a dangerous wreck, thence:
NNW of Zaqqūm Middle Light-buoy (safe water) (24°59′·3N 53°08′·6E); the light-buoy also indicates the line of the NE limits of the Port of Jazīrat Zarakkūh (7.284). Thence:
SSE of No 2 light-buoy (special) (25°00′·1N 53°04′·4E) marking the SE corner of Zarakkūh Oil Loading Terminal Tanker N Anchorage (7.286), thence:
3 NNW of Jazīrat Zarakkūh (24°53′N 53°04′E), thence:
SSE of Zarakkūh Oil Loading Terminal (25°01′N 52°59′E) (7.284), thence:
NNW of Zaqqūm West Light-buoy (safe water) (24°56′·7N 52°59′·9E).

Useful mark

7.280

1 A water intake pier extends about 3 cables E from the middle of the E side of Jazīrat Zarakkūh (24°53′N 53°04′E) (7.284); a light-beacon (E cardinal) stands at the head of the pier.

(Directions for Jazīrat Dās continue at 7.268 and for Jabal Az̧ Z̧annah and Ar Ru'ays at 7.327)

Side channels

Chart 3178

Khawr Bā ash Shabūbah

7.281

1 **Route.** Khawr Bā ash Shabūbah (24°26′N 53°22′E) leads between Ruqq al Ḩalj (7.292) and Fasht al Bazam (7.257); the channel, over 1 mile wide, has depths of 10 m and over in the fairway.

Topography. Ḩālat al Mubarraz (24°28′N 53°22′E) is a low and sandy islet standing on the S edge of Ruqq al Ḩalj; spoil from channels cut through the reef connects the islet with similar islets on the N end of the reef.

Tidal streams set W with the in-going stream and E with the out-going; at springs the stream is strong.

2 **Berth.** A T-head jetty extends about 1½ cables SE from the S end of Ḩālat al Mubarraz and can accommodate vessels of up to a maximum draught of 3·7 m.

Anchorage. Good anchorage may be obtained, with the agreement of the port authority, about 1¼ miles SSE of Ḩālat al Mubarraz.

Directions. From a position NW of Ḩālat al Mubarraz Oil Terminal (7.292) the track leads WSW passing clear of Mub Centre Light-buoy (24°26′·7N 53°25′·4E) and NNW of an obstruction, 2¼ miles SW, with a light-tower close WSW. The track continues, passing S of Ḩālat al Mubarraz passing clear of WM–5 Light-buoy (24°26′·8N 53°19′·9E) and WM–6 Light-buoy, 5¼ miles W.

3 **Caution.** It is recommended that passage through the channel should only be made during daylight, in clear weather, with the sun astern.

Khawr al Ḩalj

7.282

1 **Route.** From West Mubarraz Oilfield (24°37′N 53°13′E) the track through Khawr al Ḩalj initially leads S between Ruqq al Ḩalj (7.292) and Bū Ţīnah (24°37′N 53°05′E), a circular drying reef on which are a number of low-lying sand cays, it then continues W, passing NW of Reedeim Reef (24°24′N 53°12′E), a detached drying reef which marks the N limit of Fasht al Bazam (7.257); and N of Al Bazm al Gharbī. Al Bazm al Gharbī (24°20′N 53°05′E) is an uninhabited islet, about 2 m high, covered with sand and scrub with some mangroves on its E shore; the islet is surrounded by a drying reef and forms the W limit of Fasht al Bazam.

2 **Directions.** From a position S of the two pipe structures (lights) (24°40′·6N 53°12′·7E) standing between West Mubarraz Oilfield and Saath ar Rasboot Oilfield (24°46′N 53°11′E), the track initially leads S, favouring the Bū Ţīnah side of the fairway, passing W of WM–3 Light-buoy (24°33′·0N 53°13′·8E). It continues generally SW then W passing clear of WM–7 Light-buoy (safe water) (24°28′·1N 53°06′·1E); a shoal patch, with a least depth of 4·5 m, lies 2¾ miles NNE of the light-buoy on the N side of the fairway and a similar patch, with a least depth of 4·9 m, lies 2¼ miles E. The track continues W to the vicinity of WM–1 Light-buoy (24°28′·1N 53°00′·1E). The drying banks on Bū Ţīnah can be seen from some distance, but Al Bazm al Gharbī is only visible when in mid-channel. It is recommended that passage through the channel should be made during daylight, in clear weather, with the sun astern.

3 **Useful mark.**

A production platform (light) (24°32′·2N 52°57′·0E) stands off the SW side of Bū Ţīnah; a pipe (unlit) stands 4¼ miles NW.

Charts 3178, 3177

Khawr al Bazam

7.283

1 **General information.** Khawr al Bazam (24°10′N 53°20′E) is a blind channel leading, about 45 miles ESE, from W of Al Bazm al Gharbī (24°20′N 53°05′E) between Fasht al Bazam (7.257) and the mainland. A narrow dredged channel at the E end of Khawr al Bazam leads across the drying banks S of Jazīrat Abū Al Abyaḑ (24°11′N 53°48′E).

Topography. Ra's al Aysh (24°10′·2N 53°08′·4E) is a low-lying rocky point fringed by coral reefs on the mainland near the W end of the channel; the point is backed by a range of stony, flat-topped hills. Jabal Ghurayn, 1 mile SW, is a conspicuous conical hill which shows white against the darker background of the flat-topped hills; the peak is prominent when bearing more than 160°.

2 **Tidal streams** run strongly in the channel and are unpredictable in rate and direction.

Directions. Proceeding E through Khawr al Bazam a vessel should pass about 2 miles S of the islands on Fasht al Bazam. If approaching the reef, care should be taken to clearly identify its edge; Janānah (24°12′N 53°24′E), a rocky islet, may be passed closer to.

Caution. Entry into Khawr al Bazam should not be attempted in conditions of poor visibility when the low-lying islands are difficult to see.

3 **Anchorage,** completely sheltered by Fasht al Bazam, can be obtained in a depth of about 10 m, in good holding ground, about 1½ miles S of Al Bazm al Gharbī (24°20′N 53°05′E). It is recommended that the anchorage be approached with the SE end of the island bearing 069°, ahead.

Jazīrat Zarakkūh Oil Terminal

Charts 2444, 3178, 3179

General information

7.284

1 **Position and function.** Jazīrat Zarakkūh Oil Terminal (25°01′N 52°59′E), also known as Zirku Terminal, is situated about 9 miles NNW of the island of Jazīrat Zarakkūh at the W end of Zaqqūm Channel (7.273); the terminal services the Zaqqūm and Satah Oilfields.

Topography. Jazīrat Zarakkūh (24°53′N 53°04′E), about 18 miles SSE of Jazīrat Dās (7.263), rises to a fairly prominent, 160 m high, peak; its S part is low and is fringed by a reef; a sandspit, which extends from its S extremity, affords good landing on its E side.

2 **Port limits.** The limits of the port of Jazīrat Zarakkūh include the area surrounding the island, the oil loading terminals and N and E Anchorages.

Approach and entry. The terminal is usually approached through Zaqqūm Channel (7.273); if approaching from N, the terminal authorities must be advised, see 7.267.

Traffic. In 2004, the port was used by 240 vessels with a total of 59 118 720 dwt.

Port Authority. Abu Dhabi National Oil Company (ADNOC), Petroleum Ports Authority, PO Box 898, Abu Dhabi, United Arab Emirates.

Limiting conditions

7.285

1 **Tidal levels.** Mean spring range about 0·7 m; the tide is usually diurnal; see *Admiralty Tide Tables Vol 3.*

Density of water is 1·025 g/cm^3.

Maximum size of vessel handled. Both SBM's can handle vessels up to 280 000 dwt on a maximum draught of 21 m.

Arrival information

7.286

1 **Port operations.** Any vessel within the port limits intending to pass N across the separation zone of Zaqqūm Channel TSS (7.275), or to cross from N into the N limits of the port, should inform Zirku Radio.

Notice of ETA required. Send ETA 96, 48 and 24 hours prior to arrival and establish contact on VHF 3 hours prior to arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

2 **Outer anchorages.** A berth in the waiting anchorages will be advised by the terminal authorities; the seabed is of rock with a thin layer of sand and some coral patches; the holding ground is poor. Tanker E Anchorage, centred about 5 miles NE of Jazīrat Zarakkūh, is used by tankers waiting for a berth. Tanker N Anchorage, about 3½ miles E of the terminal, is used by tankers waiting for a berth and by those whose sailing is delayed; its NE and SE corners of are marked by light-buoys (special); a wreck, with a least swept depth over it of 23 m, lies near the middle of the W limits of the anchorage.

3 **Prohibited anchorage.** Anchorage is prohibited within the port limits outside the designated anchorages except by agreement with the port authorities.

Submarine pipelines extend NW from Jazīrat Zarakkūh to the loading berths; see 1.17. A light-buoy (special) is moored close N of a platform (24°51′·3N 53°07′·3E) (lit) standing at the outer end of a submarine outfall pipe extending ESE from the S end of the island; mooring buoys are laid close WNW

4 **Pilotage** is compulsory for all vessels and is available day and night, but in daylight only if the draught exceeds 16 m. The pilot normally boards in the SW corner of Tanker N Anchorage or in the anchorage if at anchor; see *Admiralty List of Radio Signals Volume 6 (3).*

Tug available.

Restricted areas. The two SBM's and the production platform (3¼ miles W) are all enclosed by restricted areas of 1 mile radius; a flare tower stands within a restricted area about 1¾ miles W of the S end of the island; see 7.5.

Harbour

7.287

1 **General layout.** The terminal lies approximately mid-way between Jazīrat Zarakkūh and Jazīrat Dās; No 1 Light-buoy (E cardinal) (25°02′·1N 53°00′·9E) is moored NE of the terminal marking the S end of a line of numbered light-buoys (safe water) indicating the deep water channel E of Jazīrat Dās used by departing tankers. A wellhead obstruction (24°59′·9N 52°57′·2E) (7.268) lies about 1¾ miles WSW of Berth A marked by a light-buoy (isolated danger) close N; see 7.266.

2 **Tidal streams** in the vicinity of Jazīrat Zarakkūh are variable; off the S end of the island they can causing a rippling effect on the water giving the appearance of breakers.

Major light:

Jazīrat Zarakkūh Light (24°53′·1N 53°04′·2E) (7.276).

Directions for entering harbour

7.288

1 See Zaqqūm Channel 7.279.

Directions for leaving harbour

7.289

1 Loaded tankers should pass clear of No 1 Light-buoy (E cardinal) (25°02′·1N 53°00′·9E) and the mooring buoys close NW; the deep water departure route leads generally N, as indicated by the numbered light-buoys (safe water), through to No 6 Light-buoy (W cardinal) (25°13′·1N 52°58′·6E) moored S of the inner end of Jazīrat Dās Deep Water Channel (7.260); maximum speed within the departure route is 8 kn. Note the wreck (25°06′·6N 53°01′·9E), with a least depth over it of 12·8 m, about 1¼ miles W of No 3 Light-buoy; an obstruction (position approximate) lies close NNW. See 7.266.

Berths

7.290

1 Berth A (25°00′·6N 52°59′·1E) is moored in a depth of 27 m and Berth B, 1¼ miles NNE, in a similar depth; lights are exhibited from both buoys. Two moorings buoys, NE of Berth B, lie close outside the restricted area and close NW of No 1 Light-buoy.

Alongside berths. A causeway extends about 5 cables SE from the middle part of the E side of Jazīrat Zarakkūh, close S of the water intake pier (7.280). A quay, 110 m long with alongside depths of between 2 and 3 m, is situated at the head of the causeway; cranes up to 300 tonnes capacity are available. Disused jetties extend about 3 cables SW from its middle of the W side of the island and from close N of its S extremity.

Port services

7.291

1 **Facilities:** No oily waste reception facilities.

Ḩā lat al Mubarraz Oil Terminal

Charts 3178, 3413 plan of Mubarraz

General information

7.292

1 **Position and function.** Ḩālat al Mubarraz Oil Terminal (24°26′N 53°32′E), an oil export facility for the Mubarraz Oilfield, is situated about 8½ miles E of the S end of Ḩālat al Mubarraz which serves as the terminal base.

Topography. Ḩālat al Mubarraz (24°28′N 53°22′E) is a low sandy islet lying on the S edge of Ruqq al Ḩalj, an extensive drying reef, seen as pale green water, on the W limit of Mubarraz Oilfield.

2 **Port limits.** The port limits of Mubarraz Oil Terminal include the SPM, the anchorage and the terminal base on Ḩālat al Mubarraz.

Approach. From a position NW of Mubarraz Approach Light-buoy (lateral) (24°57′·3N 53°18′·4E) moored S of Zaqqūm Channel (7.273), the route to the waiting anchorage and the pilot boarding position follows the recommended track.

Caution. Large areas NE, SW and WNW of Mubarraz Oilfield are unsurveyed; see chart source diagram.

3 **Traffic.** In 2004, the terminal was used by 5 vessels with a total of 1 326 544 dwt.

Port Authority. Abu Dhabi National Oil Company (ADNOC), Petroleum Ports Authority, PO Box 61, Abu Dhabi, United Arab Emirates.

Limiting conditions

7.293

1 **Controlling depths.** The maximum allowed draught in the approach channel is 13·5 m; a least depth of 14·3 m lies in the inner channel fairway between No 15 Light-buoy (24°26′·5N 53°36′·7E) and No 14 Light-buoy, 4 cables ESE.

Tidal levels. Mean spring range about 0·9 m; mean neap range about 0·3 m. See *Admiralty Tide Tables Vol 3.*

Density of water is 1·027 g/cm^3.

2 **Maximum size of vessel handled.** The terminal can handle vessels up to 235 000 dwt on a maximum loaded draught of 13·5 m.

Arrival information

7.294

1 **Port operations.** Vessels should not pass S of parallel 24°35′N without a pilot or having first obtained permission from the Port Authority.

Notice of ETA required. Send ETA 72, 48 and 24 hours prior to arrival; confirmation of ETA should be made on VHF a few hours before arrival at Mubarraz Approach Light-buoy; see *Admiralty List of Radio Signals Volume 6 (3).*

2 **Outer anchorages.** A waiting anchorage is situated at the inner end of the approach track, about 2½ miles NNW of No 7 Light-buoy (24°34′·1N 53°40′·2E). Anchorage may also be obtained about 2¼ miles ENE of the terminal SPM, but the holding ground of loose sand over coral is poor; at least 6 shackles of cable is recommended.

3 **Submarine pipelines** are laid from the Mubarraz Oilfield to Ḩālat al Mubarraz, and from the island to the terminal SPM; anchoring and trawling is prohibited within 1½ miles of all pipelines in the Mubarraz Oilfield. See 1.17.

Pilotage is available and is undertaken by the mooring master who boards in the vicinity of No 5 Light-buoy (24°38′·7N 53°31′·7E) or in the waiting anchorage; as berthing is only undertaken by day vessels must arrive at the pilot boarding position at least five hours before sunset. See *Admiralty List of Radio Signals Volume 6 (3).*

4 **Tug** available.

Restricted area. A restricted area surrounds the Central Facilities Platform; see 7.5.

Regulations concerning entry. Speed should be reduced to a maximum of 8 kn when within 1 mile of No 10 Light-buoy (24°30′·1N 53°40′·8E); a submarine pipeline, laid about 1·5 m above the bottom, crosses the channel in this vicinity.

Harbour

7.295

1 **General layout.** The terminal comprises a single SPM, moored in a depth of 15·5 m; a light is exhibited from the buoy.

Landmark:

Oil storage tanks and terminal structures stand on Ḩālat al Mubarraz (24°28′N 53°22′E); the tanks and structures are reported to be radar conspicuous.

Major light:

Jazīrat Zarakkūh Light (24°53′·1N 53°04′·2E) (7.276).

Directions for entering harbour

7.296

1 From the vicinity of Mubarraz Approach Light-buoy (24°57′·3N 53°18′·4E) the route leads initially S, then SE, passing W of Mubarraz Entry Light-buoy (port hand), 4¾ miles S, following the recommended track, marked by

numbered light-buoys (lateral), through to the waiting anchorage NNW of No 7 Light-buoy (24°34′·1N 53°40′·2E). The track continues, S then W, for 14 miles passing W of Mubarraz Oilfield to the vicinity of No 17 Light-buoy moored about 1¼ miles E of the terminal. Care is need in the inner approach as in some parts of the channel the light-buoys are only about 4 cables apart and depths are reduced; see 7.293.

2 **Useful marks:**

Production Platform PW 142 (24°51′·5N 53°23′·2E), and platforms PW 146, 3½ miles NNW; PW 147, 3½ miles N; PW 52, 2½ miles S; and PW 130 (7¼ miles SSE). All exhibit lights and stand within the restricted area surrounding the Zaqqūm Oilfield and the shoal area of Ruqq az Zaqqūm; note other unlit platforms stand in this vicinity.

3 Platform PC 129 (24°44′·3N 53°35′·4E) (lit); note other unlit platforms stand in this vicinity. An isolated danger buoy is moored 2½ miles SSE marking a wreck.

Platforms BC–1 (24°33′·4N 53°43′·2E); MR–6, 2½ miles NNE; BG–1, 3 miles NNE; and MR–7 4¾ miles NNE; lights are exhibited from all platforms.

4 Mubarraz Oilfield Central Facilities Platform (24°30′·3N 53°42′·2E) and its adjacent structure BB–1; lights are exhibited from both platforms and a flare burns from the facilities platform.

Production Platform BF–1 (24°28′·3N 53°41′·7E), and platforms MR–4, 2½ miles SW; AC–1, 3¼ miles SW; MR–1, 5¼ miles SW; and AB–1, 5¾ miles SW; lights are exhibited from all platforms.

Port services

7.297

1 **Repairs:** no general repair facilities but electronic repairs can be arranged through Abu Dhabi.

Supplies: no fresh water, fuel oil or provisions available.

Side channel

7.298

1 Channels, with a least depths of 5 m, have been cut from the N end of Ruqq al Ḩalj (24°32′N 53°19′E) (7.292) through to Ḩālat al Mubarraz (7.292) as part of the development of West Mubarraz Oilfield; see 7.281. Pipe structures from which lights are exhibited, stand in or close by, these channels; from N the entrance is approached from the vicinity of WM–2 Light-buoy (24°37′·7N 53°19′·3E), passing W4 Light-buoy (lateral), 2½ cables S.

Anchorage and harbour

Chart 3177

Ra's Ẕubayyah

7.299

1 **Description** Ra's Ẕubayyah (24°20′N 54°09′E) lies at the outer end of Batn al Gatii; a concrete jetty extends ENE from close S of the point.

Landmarks:

Jabal Abū Kushayshah (24°18′·4N 54°10′·8E) is a low range of hills on the W side of Jazīrat Abū Kushayshah.

Radio masts stand close to Ra's Ẕubayyah; a disused light-structure stands near the point.

Tidal streams in the channel attain rates of up to 3 kn.

2 **Directions.** A channel, marked by buoys and beacons (unreliable) with a least depth of 0·3 m over the bar, leads SE across the coastal reef to Hamleys Beacon standing ENE of Ra's Ẕubayyah.

Anchorage may be obtained by suitably sized vessels under the lee of Ra's al Ḩayyah (24°22′N 54°12′E) the W extremity of Ḩālat al Baḩrānī in depths of 3·7 m, in poor holding of sand over coral; tidal streams here attain 3 to 4 kn at springs; the beach is steep-to. The anchorage may be approached from Batn al Gatii through a dredged channel over Khawr Abū Karwa, an area of drying sandbanks.

JABAL AẔ ẔANNAH AND AR RU'AYS

General information

Charts 3179, 3780

Position

7.300

1 Jabal Aẕ Ẕannah (Jabal Dhanna) (24°11′N 52°38′E) and Ar Ru'ays (Ruwais) (24°08′N 52°44′E) are situated 6 miles apart on the N coast of the United Arab Emirates, S of Şīr Banī Yās (7.341).

Function

7.301

1 The ports are primarily used for the export of crude oil, fuel oil and LPG products; bulk cargoes and Ro-Ro vessels are also handled.

Topography

7.302

1 Ra's al Qilā (24°09′N 52°59′E) is a conspicuous cliffy promontory, 34 m high, situated about 8 miles W of Ra's al Aysh (24°10′·2N 53°08′·4E); the coast between these points, and as far W as Ar Ru'ays, is low and sandy. Inland there is desert characterised by ranges of stony, rugged and generally flat-topped hills running SE and separated by large areas of flat sand which flood at times of exceptionally high tides. The highest hills are flat-topped butts of which the most prominent are close S of Ra's al Qilā. A chain of low-lying, scrub covered islands, islets, coral reefs and drying sands extends about 23 miles WNW from Ra's al Aysh; the area between the islands and the coast is only navigable by boats. From Ar Ru'ays to Jabal Aẕ Ẕannah, 6 miles WNW, the coast is generally low-lying and sandy with a few small stony hills rising to about 9 m; it is fringed by a coral reef, with a few breaks, and is backed by a large area of sand-flats, which flood and partly cover at HW.

Port limits

7.303

1 The limits of the port include all waters S of parallel 24°26′·8N between the meridians of 52°33′·6E and 52°46′·6E, excluding the island of Şīr Banī Yās.

Approach and entry

7.304

1 From the vicinity of Zaqqūm West Light-buoy (safe water) (24°56′·7N 52°59′·9E) the approach leads initially SSW to Jabal Aẕ Ẕannah and Ar Ru'ays Outer Fairway Light-buoy (24°45′·9N 52°53′·2E); it then follows the recommended track through to Ghashā Light-buoy (24°25′·9N 52°34′·4E) and the pilot boarding position.

Traffic

7.305

1 In 2004, the port of Ar Ru'ays was used by 981 vessels with a total of 36 717 069 dwt; the port of Jabal Az̧ Z̧annah was used by 446 vessels with a total of 100 052 862 dwt.

Port Authority

7.306

1 Jabal Az̧ Z̧annah and Ar Ru'ays Port Authority, PO Box 61, Abu Dhabi National Oil Company, Petroleum Ports Authority, United Arab Emirates.

Limiting conditions

Controlling depth

7.307

1 The deep water channel (7.329) has a least depth in the fairway of 14 m and leads to both ports.

Under-keel clearance

7.308

1 The following under-keel clearance are recommended by the port authorities.

Deadweight	*Clearance*
Up to 100 000 dwt	0·9 m
100 000 to 250 000 dwt	1·2 m
250 000 to 350 000 dwt	1·5 m
Over 350 000 dwt	1·8 m

2 Maximum draught for sailing should not exceed 14 m, plus the height of tide for the time of channel transit, minus the under-keel clearance. The under keel clearance may be increased at any time at the Port Authority's discretion having due regard to the prevailing weather conditions.

Sailing delays

7.309

1 Sailing delays due to tidal conditions, assuming recommended under-keel clearances, will generally be:

Draught	*Remarks*
13·4 m	May sail at any time
13·7 m	Rarely wait for tide
14·0 m	Usually wait for tide
14·3 m	Always wait for tide
14·6 m	Occasionally delayed by several days
14·9 m	Expect long delays to ascertain predicted tidal range

2 Meteorological conditions may reduce the height of tide by up to 0·3 m; the period between June and August experiences the least tidal delays.

Deepest and longest berths

7.310

1 See 7.334 and 7.335.

Tidal levels

7.311

1 The tide is usually diurnal in nature; mean spring range about 0·9 m. Winds from NE and NW may cause an increase of up to 0·6 m in the height of the tide.

See *Admiralty Tide Tables Vol 3.*

Density of water

7.312

1 Between 1·025 and 1·035 g/cm^3.

Maximum size of vessel handled

7.313

1 Jabal Az̧ Z̧annah can handle vessels up 450 000 dwt and 377 m in length on a maximum draught of 14·3 m.

Local weather and sea state

7.314

1 The cool winter season extends over November to February and the hot summer season May to September; rainfall is usually associated with thunder storms which are prevalent from November to May, but in some years there is none at all. The prevailing winds are from W to NNE and are strongest between November and April when they occasionally reach gale force; gusts of up to 50 kn have been recorded in April. The *shamāl* may blow for periods of up to 3 days and raise a rough sea with wave heights of up to 4·5 m off Ghashā Light-buoy; a mean wind speed of 32 kn from NW, over a period of 24 hours, has been recorded in January.

Arrival information

Port operations

7.315

1 Entry and departure to both ports is by day or night subject to the prevailing weather conditions and under-keel clearance; see 7.308 and 7.309. In the deep-water channel, outward bound vessels, with a draught in excess of 9·1 m, have right of way over inbound vessels.

Notice of ETA required

7.316

1 Send ETA 72 48 and 24 hours prior to arrival and confirm on VHF 6 hours before arrival; see *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

7.317

1 Anchorage may be obtained in an area centred about 2¼ miles W of Ghashā Light-buoy (24°25′·9N 52°34′·4E); vessels should not anchor within 2 miles of the light-buoy.

Waiting anchorage. Vessels waiting for a berth, or on completion of loading waiting for favourable departure conditions, may obtain anchorage in holding berths A to K which lie NE and E of Ḩālat al 'Alaq (24°14′·4N 52°40′·9E). The holding of clay and silt is good; berths are allocated by the Port Control.

Submarine pipelines

7.318

1 Submarine pipelines, marked at intervals by light-buoys (special), connect Jabal Az̧ Z̧annah Terminal SBM berths with the shore; see 1.17.

Pilotage

7.319

1 Pilotage is compulsory for all vessels proceeding S of Ghashā Light-buoy and is available day and night; pilot boards W of the light-buoy. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.320

1 Tugs are available.

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Local knowledge

7.321

1 A vessel of moderate draught may leave the recommended track after passing Creagh Shoal (24°41′N 52°45′E) and steer direct for the outer anchorage (7.317) staying within a least depth of 12·8 m; in poor visibility care must be taken not to be set SE on to Najwat Ghashā (24°26′N 52°36′E) (7.329). Local knowledge is required.

Restricted areas

7.322

1 Restricted areas exist around Jabal Az̧ Z̧annah Oil Terminal berths and Ar Ru'ays; except with a pilot embarked navigation and anchoring within these areas is prohibited.

Harbour

General layout

7.323

1 Jabal Az̧ Z̧annah Terminal (7.334) consists of three SBMs laid between Jabal Az̧ Z̧annah and Ḩālat al ‘Alaq (24°14′·4N 52°40′·9E).

Ar Ru'ays, about 6 miles ESE of Jabal Az̧ Z̧annah, consists of a main liquid products jetty, a gas terminal jetty, a bulk cargo terminal, a sulphur berth and a small harbour. Waiting anchorages lie S and E of Ar Ru'ays Middle Shoal (24°12′N 52°44′E) and an explosive anchorage lies NE; all are under the Port of Ar Ru'ays authority; see 7.335.

Natural conditions

7.324

1 **Tidal streams** in the outer approaches are reported to attain a maximum rate of 1 kn setting along the line of the recommended route, but a rate of 1¾ kn may be encountered in the channel NE of Şīr Banī Yās; these reports are based on limited observations and should be treated with caution. Streams in the vicinity of Jabal Az̧ Z̧annah Terminal berths do not generally exceed ¼ kn and predominantly set SE and SW.

Principal marks

7.325

1 **Landmark:**

Qarn Zaqīq (24°19′·0N 52°36′·2E) is the most conspicuous peak on Şīr Banī Yās (7.341); its summit, 148 m high, is conical and lighter in colour than other peaks. Mount Stewart stands close WSW and appears black; Sydney Hill, a slightly detached peak, 135 m high, is prominent from W and stands about 1 mile N of Mount Stewart.

Jabal Az̧ Z̧annah (24°10′·3N 52°35′·7E), a conspicuous peak, 114 m high, of volcanic origin is surrounded by numerous smaller peaks interspersed with ravines. Radio masts stand on its summit; a group of oil tanks stand on its E side.

2 **Major light:**

Jazīrat Zarakkūh Light (24°53′·1N 53°04′·2E) (7.276).

Other aids to navigation

7.326

1 **Racons:**

Creagh Shoal Light-buoy (24°43′·2N 52°43′·0E).
Dalma Light-buoy (24°32′·5N 52°27′·8E).
Ghashā Light-buoy (24°25′·9N 52°34′·4E).
Price Shoal Light-beacon (24°17′·5N 52°42′·2E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 7.280)

Outer approach

7.327

1 From a position W of Zaqqūm West Light-buoy (24°56′·7N 52°59′·9E) the route initially leads SSW for 12 miles, passing:

WNW of Jazīrat Zarakkūh (24°53′N 53°04′E) (7.284), thence:

ESE of Jazīrat Qarnayn (24°56′N 52°51′E) an islet fringed by a reef which is low in its S part; at its N end there are three remarkable detached peaks, the highest rising to 53 m. Jazīrat Qarnayn Light (beacon) is exhibited from an elevation of 59 m at its summit; a radio mast stands about 3 cables SE. A dangerous wreck lies 6 cables off the E side of the island. Thence:

2 Through to a position NE of the Jabal Az̧ Z̧annah and Ar Ru'ays Outer Fairway Light-buoy (24°45′·9N 52°53′·2E).

North-eastern approach

7.328

1 The route then follows the recommended track marked by light-buoys (lateral and cardinal), passing:

Clear of Jabal Az̧ Z̧annah/Ar Ru'ays Outer Fairway Light-buoy (safe water) (24°45′·9N 52°53′·2E); a dangerous wreck (position approximate) lies 1¼ miles N of the buoy. Thence:

W of Creagh Shoal Light-buoy (W cardinal) (24°43′·2N 52°43′·0E) moored off the NW part of Creagh Shoal, an area with a least depth of 7·3; a wellhead, with a safe clearance depth over it of 7 m, lies in the NE part of the shoal. Thence:

2 SE of Patch Light-buoy (starboard hand) (24°40′·1N 52°41′·6E) moored close E of a 14 m shoal patch, thence:

SSE of JBD–05A Light-buoy (E cardinal) (24°36′·8N 52°35′·7E); note the obstruction (reported 1987), with a least depth over it of 13 m, which lies 6 cables S of the light-buoy. Thence:

SSE of AZ 17 Production Platform (24°36′·7N 52°33′·1E) (lit) standing in the S part of Arzanah Oilfield, thence:

3 W around Dalma Light-buoy (W cardinal) (24°32′·5N 52°27′·8E) moored 7½ miles ENE of Jazīrat Dalmā (7.344), thence:

NE of HD 3 Production Platform (24°30′·6N 52°26′·4E) (lit) standing in the N part of Petty Patches, four mooring buoys are laid about 1 mile W of the platform close NW of a dangerous obstruction. Thence:

NE of the light-buoy (isolated danger) (24°28′·8N 52°27′·2E) moored on the E side of Petty Patches a shoal area of three detached heads with a least depth over them of 4·6 m, thence:

4 NE of 07 Light-buoy (starboard hand) (24°29′·6N 52°29′·7E) and through to the vicinity of the pilot boarding position W of Ghashā Light-buoy (W cardinal) (24°25′·9N 52°34′·4E) moored close SW of a foul patch, with a least depth over it of 14·6 m.

Useful mark:

Jazīrat Arzanah (24°47′N 52°34′E) is an island which rises to 63 m at its N end but its S part is formed by a plain terminating in a sandy spit; lights are exhibited from a jetty near its S end and from a beacon standing S of the sandy spit. Arzanah Oilfield and its numerous platforms (lights) and mooring buoys extend about 10 miles S from the island; a restricted area (7.5) surrounds both the island and the oilfield.

Deep water channel

7.329

1 **Approach.** From a position W of Ghashā Light-buoy (24°25′·9N 52°34′·4E) the track leads, initially ESE, for 13 miles through to Jabal Aẕ Ẕannah Oil Loading Berths (7.334), the holding anchorages (7.317) or Ar Ru'ays Approach Channel (7.333), passing:

SSW of No 2 Light-buoy (port hand) (24°25′·4N 52°35′·7E) moored on the SSW edge of Najwat Ghashā, a shoal with a least depth of 7·3 m; overfalls are usually present over this shoal. Thence:

2 NE of No 1 Light-buoy (N cardinal) (24°24′·6N 52°36′·5E) moored at the N end of a shoal spur, with a least depth of 13·7 m, extending N from Bū San'ia, a detached reef off the N side of Şīr Banī Yās (7.341), with a least depth of 4·3 m. Thence:

SW of No 4 Light-buoy (port hand) (24°24′·4N 52°37′·2E) moored on the SW edge of a shoal with a least depth of 6·7 m, thence:

3 NE of No 3 Light-buoy (starboard hand) (24°23′·9N 52°37′·4E) moored at the E end of Bū San'ia, thence:

SW of No 6 Light-buoy (port hand) (2½ cables NE) moored at the WSW end of The Ridge, a spur shoal, with a least depth of 5·2 m, extending WSW from Jazīrat Ghashā, a flat rocky islet covered with coarse scrub and sand.

4 **Useful mark:**

The stranded wreck of a tug (24°25′·5N 52°38′·7E) lies on the edge of the reef N of Jazīrat Ghashā.

7.330

1 The route continues through the deep-water channel marked by numbered light-buoys (lateral and special), passing:

SW of 'Ayayat Ghashā (24°23′·8N 52°39′·7E), a partly drying coral reef, thence:

NE of NE Yas Light-buoy (E cardinal) (24°22′·1N 52°39′·4E), thence:

2 NE of Stewart Light-buoy (starboard hand) (24°20′·8N 52°40′·1E), thence:

WNW of Jazīrat Yabr (24°19′·2N 52°43′·2E), a small sandy islet, 1 m high, surrounded by a drying reef steep-to on its S side; the islet lies on the S edge of an extensive reef with foul ground on its W side. Thence:

3 ESE of East Yas Light-buoy (starboard hand) (24°19′·3N 52°40′·4E), thence:

ESE of Ruqq Bu Aitr (24°18′·3N 52°40′·2E), a shoal with a least depth of 3 m; and the dangerous coral reef about 5 cables SW. Thence:

WNW of Price Shoal (2 miles ESE), with a least depth of 1·2 m, marked by a light-beacon (red metal column, white lantern). Thence:

Through to the holding anchorages.

4 **Useful mark:**

North Yabr Light-buoy (N cardinal) (24°21′·0N 52°43′·4E) moored at the N end of the reef extending N from Jazīrat Yabr.

Secondary approach channels

7.331

1 Vessels exempt pilotage and of suitable draught should use the secondary approach channels when entering or leaving either port.

Relief route. From a position in the vicinity of Jabal Aẕ Ẕannah and Ar Ru'ays Outer Fairway Light-buoy (safe water) (24°45′·9N 52°53′·2E) the relief track leads about 20 miles SW to North Channel Light-buoy (safe water) (24°30′·1N 52°41′·6E) from where it continues S through North Channel; the relief route track passes close SE of a light-buoy (isolated danger) (24°37′·9N 52°47′·3E) marking an obstruction, with a safe clearance depth over it of 15 m; a shoal patch, with a least depth of 9·1 m, lies close SE of track, about 4½ miles NE of North Channel Light-buoy.

2 **North Channel.** From a position E of Patch Light-buoy (starboard hand) (24°40′·1N 52°41′·6E) the track leads 10 miles S to North Channel Light-buoy (safe water) (24°30′·1N 52°41′·6E); it continues S for a farther 6 miles to a position at the outer end of Yabr Channel.

Yabr Channel is entered between E Ghashā Light-buoy (24°24′·0N 52°41′·3E) (starboard hand) and W Kurkum Light-buoy (W cardinal) (2½ cables W), the track initially leads 6 miles SE to Yabr Channel Light-buoy (safe water), passing NE of N Yabr Light-buoy (N cardinal), 3½ miles SSE; it continues 3½ miles SSW through to S Yabr Channel Light-buoy (safe water) (24°15′·9N 52°43′·5E) and the waiting anchorages. A submarine cable is laid N from close E of Ar Ru'ays to the vicinity of S Yabr Channel Light-buoy; it then follows Yabr Channel to a position N of W Kurkum Light-buoy whence it is laid NE to Jazīrat Zarakkūh (7.284).

Entry to Jabal Aẕ Ẕannah.

7.332

1 From the inner end of the deep water channel (7.329) the track leads initially SW to a position NW of Ḩālat al 'Alaq (24°14′·4N 52°40′·9E), a small islet less than 1 m high, lying on the SW corner of a drying reef. The track continues S passing W of NW 'Alaq Light-buoy (port hand) (24°15′·2N 52°40′·4E) and E of No 15 Light-buoy (starboard hand), 9 cables WSW, thence W of W 'Alaq Light-buoy (W cardinal), 6½ cables S, marking a shoal with a least depth 13·7 m, and through to the loading berths (7.334).

2 **Useful mark:**

South 'Alaq Light-beacon (white metal framework tower, red bands) (24°13′·9N 52°41′·6E) standing about 8 cables SE of Ḩālat al 'Alaq.

Departure. When clear of the loading berths the initial track is E to pass S, then E, of South 'Alaq Light-beacon (24°13′·9N 52°41′·6E); it continues NNW passing ENE of E 'Alaq Light-buoy (E cardinal), 6¼ cables N, and N 'Alaq Light-buoy (N cardinal), 1¾ miles NNW, and through to the inner end of the deep water channel.

Entry to Ar Ru'ays

7.333

1 From the inner end of the deep water channel (7.329) the track leads SSE to the outer end of Ar Ru'ays Approach Channel and SSW of the waiting anchorages (7.317), passing (with reference to South 'Alaq Light-beacon (24°13′·9N 52°41′·6E)):

WSW of Price Shoal (3¾ miles N) (7.330), thence:

ENE of N 'Alaq Light-buoy (N cardinal) (1¾ miles NNW), thence:

WSW of S Yabr Channel Light-buoy (safe water) (2½ miles NE) moored at the inner end of Yabr Channel (7.331), thence:

2 ENE of E ‘Alaq Light-buoy (E cardinal) (6 cables N) moored E of Ḩālat al ‘Alaq (7.332), thence:

ENE of South ‘Alaq Light-beacon (7.332), thence:

WSW of Reef Light-buoy (W cardinal) (2¾ miles ENE) moored close off the SW side of the drying reefs on the E side of the anchorage area, thence:

SW of No 22 Light-buoy (port hand) (1½ miles E) moored at the outer end of Ar Ru’ays Approach Channel.

3 **Ar Ru’ays Approach Channel.** The track continues SE passing NE of Ar Ru’ays Middle Shoal (24°12′N 52°44′E), an area, with a least depth of 11·1 m, whose overall extent is indicated by four light-buoys (cardinal); and through the approach channel, marked by light-buoys. The track from the inner end of the channel leads S or SW to the various berths, noting Ar Ru’ays Patch, a shoal depth of 4·7 m lying 1½ miles E of the head of GASCO Jetty, marked by a light-buoy (N cardinal).

Berths

Jabal Az̧ Z̧annah

7.334

1 **Oil Terminals**. Berth 2 (24°12′·8N 52°40′·4E) is moored in a depth of 18 m about 3 miles NE of the shore installations; Berth 4, 1¼ miles NW, is moored in a depth of 19·8 m and Berth 3, 1¼ miles SE, in a depth of 19·2 m. All SPM berths can handle vessels of between 100 000 and 450 000 dwt and between 250 and 377 m in length; lights are exhibited from all buoys. Charted depths at the berths may be reduced by up to 2·5 m due to seabed installations. See 7.318.

2 **Alongside berths** A jetty (24°11′N 52°38′E), which includes a marina in a small basin and two Ro-Ro berths, extends about 5 cables NE from close N of Jabal Az̧ Z̧annah shore facilities. From the vicinity of the fairway-buoy (24°12′·1N 52°38′·2E) the jetty is approached through a channel, marked by buoys (lateral) and dredged to 8 m (1995); lights are exhibited from the head of the outer arm of the jetty.

Ar Ru’ays

7.335

1 **Anchorage** berths N, P, R and S all lie E and S of Ar Ru’ays Middle Shoal (24°12′N 52°44′E); berth T lies ESE of Ar Ru’ays Patch Light-buoy (24°10′·1N 52°44′·9E); an explosives anchorage is centred about 2 miles ENE of N Middle Light-buoy (24°12′·8N 52°43′·8E). All berths are under the control of Ar Ru’ays Port Authorities.

2 **Alongside berths.** Liquid Products Jetty (24°10′N 52°43′E), SE of Jabal Az̧ Z̧annah Oil Terminal Berths, consists of a trestle jetty extending 1½ miles N from the shore and an outer arm extending NW with three alongside berths. Berth B has an alongside depth of 18·5 m and can handle vessels up to 280 m in length; Berth C has a depth of 18·8 m and can handle vessels up to 130 000 dwt and 295 m in length; Berth E has a depth of 19·6 m and can handle vessels up to 333 000 dwt and 360 m in length; lights are exhibited from the ends of the outer arm.

3 Coastal Tanker Jetty is a short arm extending NW, about 1 mile from the shore, from the W side of the Liquid Products trestle jetty; it has alongside depths of 8·5 m and provides four berths which can handle vessels of between 2600 and 9100 dwt, and 70 and 118 m in length; a light is exhibited from the outer end of the jetty.

GASCO (LNG) Jetty, close SE of Ar Ru’ays Liquid Products Jetty, consists of a loading platform, four breasting dolphins and six mooring dolphins at the outer end of a trestle jetty extending about 1¼ miles N from the shore; the berth has an alongside depth of 17 m and can handle gas carriers up to 125 000 cubic metres capacity; lights are exhibited from each end of the berth.

4 Bulk Cargo Terminal, about 1 mile SE of GASCO Jetty, consists of a 512 m long jetty and dolphins extending about 4 cables N from the shore. A conveyer loading system on the berth is used for the export of urea; liquid ammonia and liquid ethylene are also loaded at the N end of the jetty. The sulphur berth has three mooring dolphins close offshore ESE of the root of the bulk cargo terminal quay, it can handle vessels up to 25 000 dwt. The approach, through a short channel and turning basin, is dredged to 12 m (1984) and marked by light-buoys (lateral). A cooling water intake channel lies between protective breakwaters W of the terminal.

5 Construction Wharf, also known as Barouge Jetty, lies about 1¼ miles SE of the Bulk Cargo Terminal within a small basin protected by a breakwater and drying flats. The basin is approached from N passing between Ar Ru’ays Patch Light-buoy (N cardinal) (24°10′·1N 52°44′·9E) and No 30 Light-buoy (port hand), 6 cables ENE; the track then leads through Barouge Channel, which is 120 m wide, marked by light-buoys (lateral) and dredged to 8·3 m (2003), to a turning basin 300 m in diameter. The Barouge Polymers Company quay on the S side of the basin can handle vessels up to 12 000 dwt on a maximum draught of 8·3 m; a Ro-Ro berth is at its W end. Development work is in progress (2004).

Port services

Repairs

7.336

1 Not available.

Other facilities

7.337

1 Oily waste reception facilities at GASCO Jetty only; no garbage reception facilities; barges available; floating crane; cranage.

Supplies

7.338

1 Fresh water available by arrangement at Ar Ru’ays, but not always at refinery berths; fuel oil available at Ar Ru’ays; supplies (48 hours notice required).

Communications

7.339

1 Abu Dhabi International Airport 230 km distant.

Harbour regulations

7.340

1 The national flag of the United Arab Emirates should be flown by day by all vessels visiting the port.

Şīr Banī Yās

Description

7.341

1 Şīr Banī Yās (24°19′N 52°36′E) is a prominent island, surrounded by a fringing reef, on the W side of the inner approach to Jabal Az̧ Z̧annah and Ar Ru’ays; in the centre of the island rise volcanic hills of which Qarn Zaqīq

(24°19′·0N 52°36′·2E) (7.325) is the most conspicuous. Jabal Buwayridah, a bluff 22 m high, stands near the islands E extremity; on each side of the bluff the land is low. Ra’s Khuḑayrīyah forms the S end of the island, from which a low sandy plain, covered with coarse scrub, rises gradually to the S limit of the hills about 2 miles N. An airfield and helicopter landing area are N of Ra’s Khuḑayrīyah.

Channel south of Şīr Banī Yās

7.342

1 A channel, dredged to 8·5 m, leads WSW between the S end of Şīr Banī Yās and Long Reef (24°14′N 52°37′E), a shoal area of numerous coral heads; the E side of the reef is indicated by light-buoys (special); depths of 5 m lie W of the W entrance to the channel. A submarine water pipeline and a power cable are laid from the S end of the island SSW to the mainland; the pipeline is unburied and depths may be reduced by 2 m. Vessels should not anchor or trawl in their vicinity.

Khawr Da’sah

7.343

1 Khawr Da’sah (24°17′N 52°37′E), a small lagoon entered from the SE corner of Şīr Banī Yās, is approached from the vicinity of a light-buoy (safe water) (24°16′·0N 52°38′·3E), passing between two light-buoys (port and starboard hand), 7 cables WNW. Light-buoys (cardinal) are moored SE and S of the entrance; a light-buoy (isolated danger) is moored close S of Ra’s al Buwaytir (24°16′·4N 52°37′·4E). The narrow entrance, almost blocked by the sandspit extending W from a beacon (tripod, 4 m high; white diamond topmark), has a depth of 0·3 m; inside the lagoon lies deeper water. A desalination plant is situated on the W side of the approach; a pier extends SE, then E, from the plant, on its outer end stands a beacon (triangle topmark); a small harbour enclosed by a breakwater lies close SSW.

Jazīrat Dalmā

Chart 3951, 3179

General information

7.344

1 **Description.** Jazīrat Dalmā (24°30′N 52°18′E) lies about 24 miles NW of Jabal Az̧ Z̧annah (7.256), in its N part are a series of low hills which, from a distance, appear as tableland; a hill, 98 m high, stands near the N end of the island. In its S part the island is low and sandy and draws away to a long sandspit of reclaimed land with a small basin on its W side. A village with a tower is situated on the SW side of the island; jetties extend WSW from the vicinity of the village, which was once the centre of the pearling industry. A desalination plant and jetty are situated on the SE corner of the island. Landing is easy on either side of the reclaimed sandspit, elsewhere the shores are fringed by a reef.

2 **Depths.** There are numerous shoals in the vicinity of Jazīrat Dalmā; soundings give little or no warning of any danger. Under good conditions of light and sea, shoals with depths over them of less than 10 m, normally show up, but this cannot be relied upon.

Directions. From the mainland the island may be approached by a route used by ferries departing from the vicinity of No 9 Light-buoy (24°11′·0N 52°33′·9E); the track follows the line of a submarine cable and leads NNW for about 18 miles along a line of numbered light-buoys (safe water) to a position off the SE part of the island in the vicinity of No 1 Light-buoy (24°26′·7N 52°20′·9E).

3 **Oil berth.** An offshore mooring consisting of three mooring buoys (lit) is situated 8 cables E of the S end of the main part of the island; a submarine oil pipeline connects the terminal to the island. The berth may be approached from the vicinity of the light-buoy (safe water) (24°28′·0N 52°24′·0E) moored about 2¾ miles WSW of Petty Patches (7.328), passing between light-buoys (port and starboard hand) moored 2½ miles W.

JABAL AZ̧ Z̧ANNAH TO RA’S RAKAN INCLUDING OFFSHORE OILFIELDS AND TERMINALS

GENERAL INFORMATION

Charts 3951, 3950, 2523

Area covered

7.345

1 This section describes the ports, oil terminals and their approaches which lie between Jabal Az̧ Z̧annah (24°11′N 52°38′E) and Ra’s Rakan (142 miles NNW); it is arranged as follows:

Shah Allum Shoal to Doha and Mesaieed (7.351).
Doha (7.382).
Mesaieed (7.414).
Cable Bank to Ra’s Laffān (7.454).
Ra’s Laffān (7.467).

Topography

7.346

1 Between Jabal Az̧ Z̧annah (24°11′N 52°38′E) and Jabal Barākah, 18 miles WSW, the shore is sandy, low-lying and covered by hummocks and desert grass; a group of hills rising to an elevation of 50 m lie about half a mile inland and 6 miles WSW of Jabal Az̧ Z̧annah. Jabal Barākah, a hill, 64 m high, is composed of reddish sandstone, but blown sand covers all but its steepest slopes; on its seaward side it rises steeply from 6 m high cliffs. Jabal Wutayd (23°56′N 52°18′E) stands about 5 miles SSW of Jabal Barākah and is the W hill of the low coastal range. Sabkhat Maţţī is the name of the district between Jabal Wutayd and Ra’s as Sila’ (24°02′N 51°47′E); the area is mostly desolate and partly swampy and is known as the hottest part of Persian Gulf. North of Ra’s as Sila’, as far as Ra’s Sarab (24°16′N 51°47′E), the coast consists of a succession of small rocky points; the land behind rises gradually to a level tableland, about 30 m high, falling to the coast in a series of small terraces or steps. The tableland is of a light colour and sometimes sparkles in the sunlight from fragments of crystals embedded in its surface.

2 Ghāfat Shibhāni (24°06′N 51°45′E) is a conspicuous clump of trees standing about 2 miles inland of Qaşār al Ba’ayā, a small islet on the coastal reef; the clump of trees reaches an elevation of 49 m and from a distance looks like an outcrop of black rock. At Ra’s Sarab (24°16′N 51°47′E) there is a small, 18 m high, remarkable table-topped hill; the coast for about 1 mile NW of the point consists of low white cliffs which then fall towards Ra’s Mushayrib, 2¾ miles NW, a very low, rocky and shelving point.

3 Between Ra’s Mushayrib (24°18′N 51°45′E) and Ra’s Umm Mayūb, 22 miles NW, the coast is indented by bays and inlets; the land is low and liable to flood. Between Ra’s Umm Mayūb (24°30′N 51°25′E) and Ra’s Abū

Home Contents Index

Qumayyiş, 6½ miles NE, the coast is backed by a sandy plain, partially scrub-covered, rising to a range of hills. Jabal Mayūb (24°31′N 51°23′E), a flat-topped hill, 76 m high, stands about 2 miles W of Ra’s Umm Mayūb; the Three Buttes are prominent hillocks, 30 m high, about 1 mile NW of the point. Between Ra’s Abū Qumayyiş (24°34′N 51°30′E) and Ra’s al ‘Udayd, 6½ miles WNW, a 6 m high rocky point, the coast is rocky with some sand and scrub; the coastal bank is foul. Jabal al ‘Udayd (24°36′N 51°26′E) is a conspicuous table-topped hill, 95 m high, standing about 5 miles WNW of Ra’s Abū Qumayyiş; between the hill and Ra’s A’ Waya, 1½ miles NNE, there is an isolated rocky outcrop, 41 m high, and a small range of rocky hills, 55 m high.

Local knowledge

7.347

1 Many of the offshore shoals on Ruqq Quraynayn (7.380) between Khawr al ‘Udayd (24°37′N 51°23′E) and Ḩālat Umm al Khayfān (25°09′N 51°58′E) have navigable channels leading between them which may be used by vessels of suitable draught, but without local knowledge they should not be attempted. The water in this area is opaque and the usual sign of discoloured water, marking the limits of shoals, is lacking.

2 Any vessel drawing more than 3·7 m should not proceed inside the 11 m contour between Doha (25°17′N 51°32′E) and Ra’s Laffān, 37 miles N, unless certain of its position. The coast can rarely be seen until near the 5 m contour causing difficulties in the shallow waters; the coast, without local knowledge, is difficult to recognise.

Depths

7.348

1 Large unsurveyed areas lie along the coast between Jabal Barākah (24°01N 52°20′E) and Qaşār al Ba’ayā, 31 miles WNW; and N and NE of Jazā’ir al Yāsat (24°13′N 52°00′E); see chart source data diagrams. A chain of reefs, mostly unsurveyed, extends almost continually N from Jazā’ir al Yāsat to the N end of Ruqq Quraynayn, 60 miles N; there is no recognised ship channel through these reefs.

The coastal bank between Doha (25°17′N 51°32′E) and Ra’s Laffān, 37 miles N, on which lie numerous shoals and drying patches, extends up to 12 miles offshore; close to the coast the bottom is of white sand and rock and usually shows up well in the clear water; the bottom may sometimes be seen before land is sighted.

Hazard

7.349

1 Between the islands, islets and reefs on the W side of Ruqq Umm Al ‘Anbar (24°36′N 51°54′E) and off the mainland S of Ra’s Abū Qumayyiş (24°34′N 51°30′E), there are numerous shoal areas. Navigation in these waters should only be attempted in favourable conditions of visibility and not before 0930, or after 1630, nor at any time during a flat calm, as shoals do not show up well at these times.

Submarine cables

7.350

1 Mariners are advised not to anchor or trawl near submarine cables; anchoring and trawling are prohibited in Qatari waters within 500 m of the FOG (Fibre Optic Gulf) cable (25°38′N 51°43′E) (1.35).

SHAH ALLUM SHOAL TO DOHA AND MESAIEED

General information

Chart 2886

Route

7.351

1 From a position about 10 miles ESE of Shah Allum Shoal (26°25′N 52°30′E) (7.461) the route initially leads SSW for about 36 miles to a position NE of Jazīrat Ḩālūl (25°41′N 52°25′E); the track then continues about 52 miles SW, passing NW of Jazīrat Ḩālūl, through to Mishut Light-buoy (25°16′·0N 51°46′·8E).

Depths

7.352

1 Numerous shoal patches and banks, over which there are depths of less than 20 m and many with less than 10 m, lie within 15 miles of Qatar Light-buoy (25°40′·0N 51°56′·5E); similar shoal depths lie between the light-buoy and Jazīrat Ḩālūl, 25 miles E.

Steeply rising coral patches may exist in this area; fresh water springs, which can cause false readings from echo sounders, are known to exist.

Route recommendation

2 It is strongly recommended that larger vessels and tankers do not pass S of Jazīrat Ḩālūl when on passage to or from Mesaieed or Doha.

Principal marks

7.353

1 **Major lights:**

Jazīrat Ḩālūl Light (tower with white base and black top, 5 m high) (25°40′·4N 52°24′·5E) exhibited from Jazīrat Ḩālūl (7.357); an aero light is exhibited S of the light.

Ḩālat Umm al Khayfān Light (white tower, red stripes) (25°09′·1N 51°57′·6E) exhibited from Ḩālat Umm al Khayfān, a rocky area in the NE part of Ruqq Quraynayn (7.380); a rubble tower stands 2 cables N of the light.

Other aids to navigation

7.354

1 **Racons:**

Al Khalij Oilfield (25°56′·6N 52°41′·4E).
Qatar Light-buoy (25°40′·0N 51°56′·5E).
Doha Light-float (25°16′·4N 51°45′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

7.355

1 From a position ESE of Shah Allum Shoal (26°25′N 52°30′E) the track leads SSW, passing:

ESE of Balal Oilfield (26°19′N 52°35′E); see 7.5. Thence:

WNW of Al Khalij Oilfield (25°57′N 52°40′E); Reshadt (Rostam) and Resalat (Rakhsh) Oilfields, connected by submarine pipeline to Jazīreh-ye Lavan Oil Terminal (6.26), lie 12 miles and 26 miles E respectively. See 7.5. Thence:

2 ESE of a light-buoy (special) (25°58′·9N 52°25′·7E), moored close NE of a wellhead, with a least depth over it of 26 m, thence:

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WNW of a shoal (25°48′N 52°36′E) with a least depth of 18·3 m; a wellhead, with a least depth over it of 18·9 m, lies about 1½ miles NE.

(Directions for Jazīrat Ḩālūl Oil Terminal continue at 7.361)

Charts 2886, 3950

7.356

1 The track continues SW, passing:

SE of Najwat Najem Oilfield (25°50′N 52°23′E); see 7.5. Thence:

NW of a shoal (25°44′N 52°26′E) with a least depth of 18 m, thence:

NW of Jazīrat Ḩālūl (25°41′N 52°25′E) (7.357) from which a light (7.353) is exhibited, thence:

SE of a shoal (25°44′N 52°20′E) with a least depth of 19·5 m; a shoal, with a least depth of 8 m, was reported (1986) to lie 1¾ miles farther W. Thence:

2 Clear of, depending on draught, a shoal (25°39′N 52°15′E) with a least depth of 13·1 m, thence:

NW of Al ‘Idd ash Sharqi Oilfield (25°29′N 52°23′E), which lies within a restricted area, and South Dome Oilfield, 10 miles S. Al ‘Idd ash Sharqi shoal, on which there are a number of wrecks, lies between the oilfields; a light-buoy (S cardinal) is moored S of a shoal patch, with a least depth of 2·1 m. See 7.5. Thence:

NW of a shoal (25°32′N 52°13′E) with a least depth of 13·1 m, thence:

3 SE of a dangerous wreck (25°29′·6N 52°04′·5E); light-buoys (N and S cardinal) are moored N and S of the wreck. Thence:

Clear of, depending on draught, a shoal (25°27′N 52′03′E) (reported 1986) to have a least depth over it of 14 m. Two other shoals, with least depths of 9·7 and 8·7 m were reported in 1986 to lie 4½ miles NW and 6 miles WNW respectively. Thence:

4 SE of a shoal (25°25′N 51°52′E), with a least depth of 9·4 m, thence:

Having regard to the charted depths in the approach, to Mishut Light-buoy (25°16′·0N 51°46′·8E) from where the track leads W to Doha Light-float, 1¾ miles WNW, and the Doha pilot boarding position; or SW to QPC North Light-buoy (25°14′·0N 51°45′·5E) and the Mesaieed pilot boarding position.

Useful mark:

Qatar Light-buoy (safe water) (25°40′·0N 51°56′·5E).

(Directions for Doha continue at 7.405 and for Mesaieed at 7.436)

Jazīrat Ḩālūl Oil Terminal

Charts 2444, 3950, 3413 plan of Jazīrat Ḩālūl

General information

7.357

1 **Position and function.** Jazīrat Ḩālūl Oil Terminal (25°40′N 52°25′E) lies 40 miles NW of Jazīrat Dās (7.263), and is a major oil storage and export terminal for Qatar. The terminal services and is connected by submarine oil pipelines to the Al Khalij Oilfield, 22 miles NE; the Maydan Mahazam Oilfield, 8 miles SE; the Bul Hanine Oilfield, 23 miles SE; the Al ‘Idd ash Sharqi Oilfield, 10 miles S; and the South Dome Oilfield, 20 miles S; all lie within restricted areas. In addition it receives crude oil into its storage facilities from tankers loaded at the Al Shaheen Oil Terminal (26°35′N 51°59′E) (7.462); see 7.5.

2 **Topography.** Jazīrat Ḩālūl is roughly oval in shape with a length of 1 mile; the island is hilly rising to an elevation of 62 m, and is reported to be radar conspicuous, it is fringed by a reef extending in places up to 3 cables offshore. The island is mostly barren with a number of oil storage tanks and a small industrial complex, but many trees and shrubs have been planted to enhance the landscape

3 **Depths.** Jazīrat Ḩālūl lies in an area of irregular depths where there are numerous shoal patches, banks and dangers with depths of less than 20 m over them, in many cases much less. These dangers lie upwards of 30 miles in all directions from the island and caution should be exercised when navigating in this area.

Mahazam (25°27′N 52°45′E) is an extensive shoal bank, with a least depth of 6·7 m, lying within the limits of the Bul Hanine Oilfield restricted area; a dangerous wreck lies close off the SW part of the bank. Kharaze (25°18′N 52°34′E) is another extensive bank with a least depth of 13·7 m; a dangerous wreck, marked by a light-buoy (isolated danger), lies on the W end of a detached shoal bank close W of Kharaze.

4 **Approach.** The terminal may be approached from NNE passing between H2 Light-buoy (port hand) (25°39′·9N 52°31′·5E) and H1 Light-buoy (starboard hand), 2½ miles W.

Traffic. In 2004, the terminal was used by 53 vessels with a total of 13 774 141 dwt.

Port Authority. Qatar Petroleum, PO Box 47, Doha, Qatar.

Passing traffic. It is strongly recommended that larger vessels and tankers do not pass S of Jazīrat Ḩālūl when on passage to or from Mesaieed or Doha.

Limiting conditions

7.358

1 **Controlling depth.** Berth 1 is moored in a depth of 31 m and Berth 2 in 35 m.

Tidal levels. Mean spring range about 0·8m; see *Admiralty Tide Tables Volume 3.*

Density of water is 1·030 g/cm^3.

Maximum size of vessel handled. Both berths can handle vessels up to 550 000 dwt on a maximum draught of 29 m; minimum size accepted 75 000 dwt.

Arrival information

7.359

1 **Notice of ETA required.** Send ETA at least 72 hours prior to arrival with confirmation or amendment at 24 hours; confirm 6 hours in advance through port radio. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages. Anchorage may be obtained in the tanker anchorage centred about 2 miles E of Jazīrat Ḩālūl in depths of between 21 and 25 m, sand; the anchorage is open to the *shamāl* which can blow strongly in this area.

2 **Prohibited anchorage.** Anchorage is prohibited within the area of submarine pipelines covered by the red sector of Jazīrat Ḩālūl Light (7.353); pipelines also land on the NE part of the island; see 1.17.

Pilotage is compulsory; pilot/berthing master boards about 2 miles ENE of the terminal close S of H1 Light-buoy. See *Admiralty List of Radio Signals Volume 6 (3).*

Tug available.

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Harbour

7.360

1 **General layout.** The terminal consists of two SBM berths laid 2 miles and 3 miles SE of the island.

Development. A small harbour for use by support vessels, entered from S, is situated on the S side of the island; work is in progress (2005) to extend the harbour and increase its berthing capacity.

Hazard. An unmarked dangerous wreck (position approximate) (25°34′N 52°26′E) lies about 6¼ miles SSE of Jazīrat Ḩālūl.

2 **Tidal stream** The in-going stream sets SSW, and the out-going NNE, at rates of up to 2 kn; tide-rips occur off the island, particularly on its S side.

Landmarks:

- A prominent group of oil storage tanks stand N of Jazīrat Ḩālūl Light; further tanks stand on lower ground S of the light.
- A radio mast (135 m high; aero light) (25°40′·3N 52°24′·9E) stands E of Jazīrat Ḩālūl Light.

Major light:

- Jazīrat Ḩālūl Light (25°40′·4N 52°24′·5E) (7.353).

Directions for entering harbour

(continued from 7.355)

7.361

1 From a position about 10 miles NE of Jazīrat Ḩālūl the track leads SSW, passing:

- WNW of Ḩālūl East Shoal (25°43′N 52°39′E) (not charted by name) with a least depth of 12·8 m, and marked by a light-buoy (isolated danger). Note a wreck, with a least depth over it of 11·2 m, lies 2 miles SE of the shoal and is marked by a light-buoy (isolated danger). Thence:
- ESE of a shoal (25°41′·9N 52°29′·6E) with a least depth of 16 m; a wellhead, with a least depth over it of 21 m, lies close SE. Thence:
- 2 Between H2 Light-buoy (port hand) (25°39′·9N 52°31′·5E) and H1 Light-buoy (starboard hand), 2½ miles W, to the pilot boarding position.

Directions for leaving harbour

7.362

1 The pilot/berthing master will disembark E of the loading berths when well clear of the submarine pipeline area (7.359). Under no circumstances should a laden vessel navigate within the pipeline area S of Jazīrat Ḩālūl or within 3 miles of the island. Once clear of H1 and H2 light-buoys the departure track leads ENE, passing NW of the light-buoy (isolated danger) (25°42′·8N 52°38′·5E) marking Ḩālūl East Shoal (7.361).

Berths

7.363

1 Berth 1 (lit) (25°38′·8N 54°26′·4E) is moored in a depth of 31 m about 2 miles SE of Jazīrat Ḩālūl and can handle vessels up to 550 000 dwt on a draught of 22 m, 25 m by agreement. Berth 2 (lit), 1¼ miles ESE, is moored in a depth of 35 m and can handle vessels up to 550 000 dwt on a draught of 29 m.

Port services

7.364

1 **Repairs**. No repair facilities.

Other facilities. Doctor, but medical emergencies by helicopter to Doha; no garbage disposal facilities.

Supplies. No fresh water or fuel oil.

Communications. Airstrip; nearest airport Doha.

Anchorages and harbours

Chart 3179

Jazīrat Dayyīnah

7.365

1 **Description.** Jazīrat Dayyīnah (24°57′N 52°24′E), situated about 12 miles NW of Jazīrat Arzanah (7.328), is flat, sandy and sparsely covered with scrub. Its highest part is a black rock, 4 m high, lying on the coastal reef off its N end; further rocks lie W. Many off-lying shoals, some extensive, lie near the island. The Satah Oilfield (24°55′N 52°33′E) lies about 8 miles ESE; the Karkara Oilfield (25°08′N 52°28′E) and the oil storage unit *Thebro* lie within a restricted area about 11 miles NNE; see 7.5.

2 **Tidal streams** in the vicinity are strong and unpredictable, but run mainly SW with the in-going stream and NE with the out-going; they are much diverted by the island and can attain a rate of over 1 kn at springs.

Anchorage may be obtained in a depth of 10 m about 9 cables SSE of the S extremity of the island; the anchorage is more sheltered from the *shamāl* than might be expected given its small size.

Chart 3950

Jazīrat Sharā‘iwah

7.366

1 **General information.** Jazīrat Sharā‘iwah (25°02′N 52°14′E), a islet, 12 m high, lies about 9 miles WNW of Jazīrat Dayyīnah (7.365). It has a number of small hummocks lying E/W, its middle is low and there is a good sandy beach. Sharā‘iwah Light-beacon (4 m high) stands on a rocky shoal about 1 mile NNW of the islet.

Depths in the area are irregular.

Anchorage, providing fair shelter during a *shamāl,* may be obtained about 3 cables offshore off the S side of the islet in depths of between 9 and 11 m, sand; however, a vessel of 60 m would swing into a depth of about 7 m; anchoring farther offshore affords no shelter.

Chart 3951

Khawr Duwayhin

7.367

1 **Description.** Khawr Duwayhin is the S part of the large bight formed by the coast between Ra’s Juwaifariya (24°20′N 51°24′E), a rocky point, 6 m high, fronted by a drying reef, and Ra’s Umm Mayūb, 10½ miles N; its N part is known as Dawḩat Tullah. The coast is backed by a low-lying sandy plain, partially scrub covered with some sandhills on its W side. The SW and W parts are fringed by a drying bank and are liable to flood at very high tides. Jabal Tullah (24°27′N 51°19′E), about 6 miles SW of Ra’s Umm Mayūb, comprises six hillocks, between 21 and 29 m high, standing close together; an isolated conspicuous hillock, 24 m high, stands about 5 cables SW of the main group.

2 **Anchorage** may be obtained about 1½ miles offshore in the SE part of the head of Khawr Duwayhin in depths of 8 m mud; note the shoal patches, with least depths over them of 0·3 and 1·8 m, which lie either side of the track through to the head of the bay.

Bandar Mayūb

7.368

1 **Description.** Bandar Mayūb is a small bay entered between Ra’s Umm Mayūb (24°30′N 51°25′E) and Ra’s

Marda’, 2½ miles NE; Jazīrat Hadhbah lies close S of Ra’s Marda’ on the N side of the entrance. Bandar Ma’tuq, is another small bay entered close N between Ra’s Marda’ and Ra’s Seyād, 2½ miles NE, a rocky islet almost joined to the mainland.

Anchorage may be obtained in Bandar Ma’tuq, sheltered from the *shamāl*, in depths of 14 m, sand and shell.

Khawr al ‘Udayd

7.369

1 **Description.** Khawr al ‘Udayd (24°37′N 51°23′E) is a narrow inlet which leads about 5 miles SW from Ra’s al ‘Udayd (7.346) before opening out into an extensive shallow lagoon. A least depth of 0·9 m can be carried over the entrance bar which consists of drying sand and coral, and some small rocks; there is deeper water in the channel leading into the lagoon which is used by fishermen during the winter months.

2 **Anchorage**, sheltered from the *shamāl*, may be obtained in depths of about 7 m to 10 m about 5 cables offshore, sand and shell bottom, with Jabal al ‘Udayd (24°36′N 51°25′E) bearing 200°, 4½ miles distant. Care is necessary to avoid the several shoals fronting the inlet and not to get too close inshore as the sandhills W of the anchorage appear farther off than they actually are.

Chart 3787

Al Wakrah

7.370

1 **Description.** Al Wakrah (25°10′N 51°37′E) is a small town situated in a shallow bight in the coast about 1 mile N of Jabal Wakrah (7.416). A pier extends about 5 cables SE over the coastal reef from close S of a minaret; a stone wharf is situated in front of the fort. A natural drying boat harbour lies off the N end of the town between the coast and a high narrow bank of sand; the harbour may be entered at high water and is well sheltered. An area of thick weed extends about 5 cables offshore NE of the town; further N, close off Ra’s Abū Fantas (7.416), are numerous rubble fish traps.

2 **Landmarks.** A fort with a square tower and flagstaff (25°10′·3N 51°36′·7E) stands near the shore in the N part of the town with a minaret close SW.

Islands and off-lying dangers

Chart 3951

Jazīrat Shuwayhāt

7.371

1 **Description.** Jazīrat Shuwayhāt (24°07′N 52°26′E), which lies N of the village of Al Ḩamra’, is connected to the mainland by a drying spit; near its N end are steep flat-topped hills rising to 49 m. Jazīrat Az Zabbūt, a small islet, lies close N and is shaped like a boot with its toe pointing N; Ḩālat Idai (24°12′N 52°26′E), a drying coral reef with an extensive sandbank on its E side, lies about 4 miles N; many dangerous rocks and reefs lie in this whole area.

2 Webb Rock (24°05′N 52°15′E) is a detached dangerous rock which cannot be seen, even in favourable conditions, until very close when its dark brown coral can be distinguished. There is no sand on the rock to give the usual warning of lighter coloured water. A production platform (reported missing 1991) is situated about 6 cables S; an above-water wellhead pipe, 15 m high, stands 1¼ miles S.

Jazā’ir al Yāsat

7.372

1 **Description.** Jazā’ir al Yāsat (24°13′N 52°00′E) is the name of a group of two partially scrub covered islands and some islets, about 5 m high and bordered with low cliffs, which lie about 15 miles ESE of Ra’s Mushayrib (7.346). A cairn (6 m high) stands near the N end of Yāsat ‘Ali, the largest of the group; the island is separated from Yāsat Saflī, the second largest, by a narrow boat channel with a least depth in its fairway of 4 m. Yāsat Şaghīrah and Judayrah, both islets, lie on a sandbank S of Yāsat Saflī. The most suitable landing places are on the E sides of these islands.

2 Ḩadd Musafsif (24°06′N 52°04′E), with a least depth of 3·7 m, lies at the N end of a reef extending N from the mainland. Vessels using South Yāsat Channel passing between Judayrah and a detached shoal, 2 miles S, with a least depth of 3·7 m, should pass at least 1 mile N of Ḩadd Musafsif.

Umm al Ḩaţab

7.373

1 **Description.** Umm al Ḩaţab (24°13′N 51°52′E) is a low island, 2 m high, covered in scrub; its SE end is sandy and forms an excellent landing beach, but other parts are composed of sandstone and limestone rocks. Several above-water rocks, up to 2·1 m high, lie on the coastal reef N of Umm al Ḩaţab where a spit extends 2 cables E. Najwat Umm al Ḩaţab (24°13′N 51°54′E) is a dangerous reef about 2 miles E of Umm al Ḩaţab; Ruqq Musfayr is an extensive drying reef about 3 miles NNW. Jazīrat Muḩammalīyah (24°07′N 51°54′E), which lies on a dangerous drying reef 6¼ miles SSE, is a small flat-topped islet, 11 m high, bordered with low cliffs and covered in guano.

Jazīrat Na‘itah

7.374

1 **Description.** Jazīrat Na‘itah (24°17′N 51°48′E) is a low islet some 2¾ miles E of Ra’s Mushayrib (7.346) lying at the SW end of Ḩadd aţ Ţayr. It is comprised chiefly of sandstone on which there are some tufts of coarse grass; detached rocks lie off its N end.

Side channel. The Strait of Bab al Na‘ītah, about 5 cables wide, leads NW between Jazīrat Na‘ītah and the reefs NW, and the coastal reef between Ra’s Sarab (24°16′N 51°47′E) and Ra’s Mushayrib, 2½ mile NW. The strait is the only navigable passage between the mainland and the extensive reefs which lie NE. Within the strait tidal streams set NW with the in-going stream and SE with the out-going, at a maximum rate of 1¼ kn.

Jazā’ir Ghāghah

7.375

1 **Description.** Jazā’ir Ghāghah (24°25′N 51°33′E) are a group of islands, between 5 and 11 m high, lying off the entrance to Dawḩat as Sumayrah; the two main islands form a horseshoe-shaped lagoon, entered from S, which provides shelter for fishing craft. Qaşār Mal’ab, Jazīrat Ḩuwaysāt, Qaşār Khu’yain and Jazīrat Khardal all lie off the W side of the group. Fasht Umm Jannah, 9 miles N, is an extensive drying reef between 1 and 4 miles E of Ra’s Abū Qumayyiş (7.346).

Jazā’ir Muhayyimāt

7.376

1 **Description.** Jazā’ir Muhayyimāt (24°29′N 51°44′E) are a group of three very low islets on an extensive reef; the area E of the group is encumbered with shoals with no passage between. Fasht ‘Azīzī, a drying reef of coral and sand, lies SW and is separated from the group by a narrow channel. North Furayjidāt (24°25′N 51°41′E) and South Furayjidāt, 2¼ miles SSE, are two small light-coloured islets with extensive foul ground between.

Ruqq Umm Al ‘Anbar

7.377

1 **Description.** Ruqq Umm al ‘Anbar (24°36′N 51°54′E) is an extensive shoal area centred about 22 miles E of Ra’s Abū Qumayyiş (7.346) which forms part of the great chain of reefs extending N from Jazā’ir al Yāsat (7.372). Jazīrat al Qaffāy (24°35′N 51°43′E) is the largest of a number of small islands and islets, all about 9 m high, which stand, along with a number of off-lying rocks, on the W side of Ruqq Umm Al ‘Anbar; two light beacons stand SE of the head of breakwaters extending SE from the SE part of the island, lights (lateral) are exhibited from their outer ends. Jazīrat Makāsib, 6½ miles NE, is a flat rocky islet, fringed by a reef, on which stands a cairn.

Charts 3950, 3951

Al Aşḩāţ

7.378

1 **Description.** Al Aşḩāţ (24°45′N 51°36′E) is a group of three flat-topped islets and two detached rocks, the islets are bordered by light-coloured cliffs; a light (beacon) is exhibited from the larger detached rock. Dangerous shoals lie in this whole area.

Chart 3950

Fasht al ‘Udayd

7.379

1 **Description.** Fasht al ‘Udayd (24°49′N 51°47′E) is an extensive area of shoal water and drying reefs whose NW corner lies 4 miles SE of the S extremity of Fasht al ‘Ārif (7.438). The S and W limits are bound by a coral reef covered by an extensive sandbank much of which dries; it is clearly visible at all states of the tide. A beacon (position approximate) (7.437) stands off the N side of the reef; a wellhead pipe rises close NE. Ḩālat Dalmā, about 8 miles E, is another extensive shoal area.

Ruqq Quraynayn

7.380

1 **Description.** Ruqq Quraynayn, an extensive shoal only partially surveyed, extends about 20 miles N from a position 5½ miles NW of Ḩālat Dalmā (24°48′N 52°00′E); except on its W side its limits are not accurately known. Vessels passing N and E of this area should keep in depths of 11 m or more and give it a wide berth; there may be other patches on Ruqq Quraynayn, similar to Ḩālat Umm al Khayfān (7.353), that have not been closely examined; see chart source data diagram.

Al Jazīrah al ‘Āliyah

7.381

1 **Description.** Al Jazīrah al ‘Āliyah (25°24′N 51°34′E), about 7 miles N of Doha, is a barren sandy islet with a small hillock, 8 m high, at its SE end; a light (black beacon) is exhibited from a drying reef about 3 miles SE of the islet. A shallow boat channel leads W of the islet, but local knowledge is required.

DOHA

General information

Charts 3950, 3787, 3782

Position and function

7.382

1 Doha (Ad Dawḩah) (25°17′N 51°32′E) is situated near the middle of the E side of the Qatar Peninsula; it is the capital of Qatar.

Topography

7.383

1 The city and port occupy the S side of an almost enclosed bay which lies between reefs extending N from Ra’s Bū Mashūţ (25°17′N 51°37′E), now being reclaimed, and NW and SE from Al Jazīrah as Şāfilīyah (25°21′N 51°35′E) (7.405); an oil defence bund has been constructed over most of the reefs NW of the island. The land S and W consists of undulating desert rising a few miles inland to heights of between 12 and 15 m; N of Doha it is chiefly stony desert with a few hillocks, farther N is becomes very low.

See 7.416.

Port limits

7.384

1 Doha port limits extend seaward of Doha Light-float, to include Anchorage B (7.395).

Approach and entry

7.385

1 Mishut Light-buoy (25°16′·0N 51°46′·8E) is moored in the outer approach to both Doha and Mesaieed (7.414); Doha is approached passing close S of Doha Light-float (25°16′·4N 51°45′·1E) and Doha Approach Light-beacon (25°16′·5N 51°44′·1E); the port is then entered through a channel marked by light-beacons and light-buoys (lateral). If approaching Doha from N, keep in depths of not less than 10 m until reaching the vicinity of Mishut Light-buoy.

Traffic

7.386

1 In 2004, the port was used by 484 vessels with a total of 6 021 943 dwt.

Port Authority

7.387

1 Ministry of Communications and Transport, PO Box 313, Dept of Ports, Doha, Qatar.

Limiting conditions

Controlling depth

7.388

1 The entrance channel is dredged to 11 m (1994), but depths have been reported up to 1 m less than charted; the E part of the main basin is dredged to 12 m (1994).

Deepest and longest berth

7.389

1 Container Terminal Berths 10 and 11 have a combined length of about 600 m with an alongside depth of 12 m.

Tidal levels

7.390

1 Mean spring range about 1·1; mean neap range about 0·1 m. See *Admiralty Tide Tables Vol 3.*

Density of water

7.391

1 The density of the water is 1·030–1·032 g/cm^3.

Home Contents Index

Maximum size of vessel handled

7.392

1 The port can handle vessels up to 200 m in length with a maximum beam of 32 m.

Arrival information

Port operations

7.393

1 An under-keel clearance of 1 m should be allowed within the entrance channel.

Notice of ETA required

7.394

1 Send ETA 24 hours prior to arrival; confirm exact time when within VHF range or at least 2 hours before arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

7.395

1 Anchorage may be obtained by vessels exceeding 8 m draught in Anchorage A, centred about 4 miles NE of Doha Light-float (25°16′·4N 51°45′·1E); vessels bound for Mesaieed may also use this anchorage. Anchorage B, for vessels of less than 8 m draught, is centred about 3½ miles NNW of the light-float.

Submarine cables

7.396

1 See 7.350.

Pilotage

7.397

1 Pilotage is compulsory for vessels over 4 m draught and is available day and night; pilot boards close SE of Doha Light-float (25°16′·4N 51°45′·1E). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.398

1 Tugs are available.

Buoyage

7.399

1 Some buoys and beacons may not conform with the IALA Maritime Buoyage System – Region A.

Harbour

General layout

7.400

1 The harbour comprises a main basin, open SSE, situated at the NE end of a short causeway; a smaller inner basin lies SW; Flour Mill Terminal is approached through a secondary inner channel (7.406) which leads N of the main harbour area. A small Naval Harbour lies close NE of Ra’s Abū Abbūd (25°17′·6N 51°34′·3E). Several marinas are entered between QGPC Jetty (7.407) and the Immigration Berth, 7 cables W; a marina and fishing harbour are situated W of the main port in the S part of a small bay, SSE of Jazīrat al Nakheel (25°18′·3N 51°31′·6E).

Development

7.401

1 A large area of land is being reclaimed E of Ra’s Abū Abbūd and S of the main channel for the construction of a new airport. Mariners should proceed with caution when navigating in this area; for further information contact the port authorities and consult the latest *Admiralty Notices to Mariners.*

Natural conditions

7.402

1 **Tidal streams** in the offing are diurnal in character and set NNE with the in-going stream and SSW with the out-going, generally attaining a maximum rate of about 1½ kn. A strong stream of up to 2½ kn may be experienced when approaching the outer end of the entrance channel where the in-going stream generally sets N and the out-going S; it has been reported that the actual set is governed by the direction of the wind. At the inner end of the channel, in the vicinity of Doha Beacon (25°18′·8N 51°35′·8E), there is sometimes a marked set in the opposite direction to that in the offing.

2 **Climatic table.** See 1.145 and 1.155.

Principal marks

7.403

1 **Landmarks:**

Jazīrat Mishūt (25°17′·7N 51°38′·7E), an artificial island constructed S of the outer channel; lights are exhibited from its NW and SW points.

A pyramid shaped hotel (25°19′·1N 51°32′·2E) on a point N of the town is prominent when approaching the port; a building of similar construction stands close N.

2 The Rulers Palace (25°17′·4N 51°31′·6E), a large flat building, is visible from a considerable distance; a large conspicuous minaret, illuminated at night, stands close SE.

A fort (25°18′·1N 51°30′·7E) with a radio mast on its NE corner (red and white bands, 60 m high) stands in the town W of the port.

A power station with eight conspicuous chimneys stands close W of Ra’s Abū Abbūd (25°17′·6N 51°34′·3E) with a conspicuous hotel 6 cables SW.

3 A conspicuous radio mast surmounted by two spheres (red and white lattice framework, 83 m high) (25°16′·8N 51°35′·5E) stands E of the town.

Major light:

Ra’s al Maţbakh Light (25°40′·9N 51°34′·7E) (7.487).

Other aid to navigation

7.404

1 **Racon:**

Doha Light-float (25°16′·4N 51°45′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 7.356)

7.405

1 **Outer channel.** From the pilot boarding position 2 cables SE of Doha Light-float (red) (25°16′·4N 51°45′·1E) the track leads WNW, passing (with reference to Doha Approach Light-beacon (25°16′·5N 51°44′·1E)):

S of Doha Approach Light-beacon (S cardinal) standing on the S end of a shoal with a least depth of 9·4 m; a shoal, with a least depth of 10·2 m (reported 1999), lies about 5 cables ENE. Thence:

2 SSW of Outer Bellmouth North Light-buoy (starboard hand) (1 mile WNW); a shoal, with a least depth of 10·8 m (position approximate) (reported 1999), lies about 4 cables ESE.

The track continues WNW, then WSW, through the channel marked by light-beacons (lateral) and light-buoys. No 1 North, No 3 North and No 4 North Light-beacons all stand outside the N limits of the dredged channel; it has been reported that the channel light-buoys may be out of position due to the strength of the tidal stream.

3 **Useful marks:**

Doha Beacon (tower, 8 m high) (25°18′·9N 51°35′·8E) standing on the N edge of the extensive coastal reef.

Coastguard barge (25°19′·4N 51°35′·2E) moored about 9 cables S of Al Jazīrah as Sāfilīyah, a low sandy islet, covered with scrub, on the drying bank on the N side of the harbour.

Light-buoy (isolated danger) (25°18′·8N 51°34′·3E) marking an obstruction NW of the bifurcation of the channel.

4 Silos (obstruction lights, 39 m high) (25°18′·0N 51°32′·8E) standing on Flour Mill Terminal.

7.406

1 **Inner Channel.** The channel divides ENE of Light-beacon G (E cardinal) (25°18′·6N 51°34′·4E); the main channel, marked by light-buoys (lateral and cardinal) continues SW through to a turning area S of the main harbour. A secondary channel, dredged to 8·5 m and marked by light-buoys (lateral), leads generally W through to a turning area N of No 12 Flour Mill Berth.

Basins and berths

7.407

1 The main basin has eight numbered alongside berths which include a container terminal and a Ro-Ro berth. The container terminal and its immediate approaches are dredged to 12 m (2002); Berths 1 to 6 on the WSW quay have alongside depths of 8·8 m; lights are exhibited from each end of the quay; a directional light, exhibited from the middle of the connecting causeway, indicates the W limits of the 12 m dredged area. Berths 7 to 9, with alongside depths of 7·3 m, lie within and partially outside a small inner basin; an Immigration Berth is situated in its SW corner. Flour Mill Terminal lies N of the short causeway and has an alongside depth of 10 m; works are in progress (2005) WSW. QGPC Jetty, 5 cables WSW of Ra’s Abū Abbūd, extends about 180 m NW from the shore towards the W side of the main basin and has an alongside depth at its outer end of 5·5 m.

2 The Naval Harbour, about 1 mile E of the main basin, comprises a small basin entered from W between protective breakwaters from which lights (lateral) are exhibited; a light-beacon (black column) stands near the edge of the coastal reef between Ra’s Abū Abbūd and the entrance to the basin. The harbour, connected to the shore by a causeway over the coastal reef, has berthing for six patrol vessels; there is a slipway and a ship-lift housed in a conspicuous blue building.

3 **Anchorage** has been obtained about 1½ miles N of Ra’s Abū Abbūd, N of the light-buoy (isolated danger) (25°18′·8N 51°34′·3E), in depths of between 6 and 7 m, in good holding of sand and mud; the anchorage is well sheltered except from NE winds.

Port services

Repairs

7.408

1 Minor repairs can be undertaken; slipway 200 tonnes capacity.

Other facilities

7.409

1 Hospitals; deratting and exemption certificates issued; lighters; mobile cranes.

Supplies

7.410

1 Fuel oil by barge or road tanker; fresh water (by barge to anchorage); provisions.

Communications

7.411

1 Airport close SE of the town.

Harbour regulations.

7.412

Small dhows and yachts must report to the Coastguard barge (7.405) before entering harbour; other small vessels report to the Immigration Berth.

Side channel

7.413

1 A channel, marked by light-beacons and light-buoys (lateral), leads to the Diplomatic Area N of Doha. From the vicinity of the light-beacon (25°19′·6N 51°32′·9E), standing on the SW extremity of the sandspit extending SE from Al Jazīrah as Sāfilīyah (7.405), the channel leads NW passing NE of a second light-beacon (25°19′·7N 51°32′·6E) on the coastal reef, it then leads W passing along the S side of a small bay and S of Jazīrat al Nakheel Shamal (25°20′·2N 51°32′·1E).

MESAIEED

General information

Charts 3787, 3783

Position

7.414

1 Mesaieed (Musay‘īd, Umm Said) (25°00′N 51°33′E) is situated in the S part of the E side of the Qatar Peninsula; the port area occupies part of the coastline from SE of Naqā Abū ‘Anfūz (24°55′·0N 51°32′·8E) to Dawḩat Musay ‘id, 5 miles NE.

Function

7.415

1 The main exports include LNG, polyethylene, sulphur and ethylene; imports include iron ore and grain; the Qatar Steel Mills, one of the largest in Persian Gulf, are situated within the port.

Topography

7.416

1 Between the N end of Khawr al ‘Udayd (24°37′N 51°23′E) and Mesaieed, 18 miles NNE, the coast is liable to inundation at high water. Niqyān Qaţar, an irregular range of white sandhills between 15 and 45 m high, backs the NW shore of Khawr al ‘Udayd and extends NNE as far as Mesaieed; Naqā Abū Anfūź (24°55′·0N 51°32′·8E) forms the N summit of the range.

2 The town of Mesaieed may be identified by its conspicuous mosque and radio mast (48 m high) standing close SW. In the vicinity of Dawḩat Musay ‘īd the coast is low-lying and again liable to inundation; between Ra’s al ‘Ilāj (25°01′·3N 51°37′·7E) and Al Wakrah, 9 miles N, it consists of a low sandy or stony desert fringed by a coastal reef on which are numerous rubble fish traps. Jabal Wakrah (25°09′N 51°37′E) is a brown level-topped rocky hill, 23 m

high, standing SSE of Al Wakrah; a large power station stands on Ra's Abū Fantas (25°13′N 51°37′E), about 2 miles N of Al Wakrah.

Port limits

7.417

1 Mesaieed port limits include the harbour, North and South Inner Channels, Main, East and West Channels, and the waters to seaward as far as QPC North Light-buoy (25°08′·4N 51°42′·1E).

Approach and entry

7.418

1 From the vicinity of Mishut Light-buoy (W cardinal) (25°16′·0N 51°46′·8E) the approach leads initially SW to Mesaieed Approach Light-buoy (W cardinal) (25°12′·5N 51°44′·4E) where the track divides to lead through West Channel (7.438) or East Channel (7.437), before rejoining at the outer end of the Main Channel (7.439) in the vicinity of SE Arif Light-buoy (E cardinal) (24°53′·7N 51°43′·2E). The port is then entered through Main Channel, North Inner Channel (7.440) and Fairway Channel.

Traffic

7.419

1 In 2004, the port was used by 571 vessels with a total of 24 691 367 dwt.

Port Authority

7.420

1 Department of Ports, Ministry of Communications and Transport, PO Box 313, Doha, Qatar.

Limiting conditions

Controlling depth

7.421

1 East Channel is dredged to a depth of 13·5 m. a least depth of 13·6 m lies in North Inner Channel between No 3 Light-buoy and No 4 Light-buoys.

Deepest and longest berth

7.422

1 QASCO quay (7.445) has an overall length of about 790 m with an alongside depth of 15 m.

Tidal levels

7.423

1 Mean spring range about 1·2 m. See *Admiralty Tide Tables Vol 3.*

Abnormal water levels

7.424

1 Tides in this area have a large diurnal component and at times only one high water and one low water occur during a 24 hour period, this feature is more pronounced at Mesaieed than at the seaward end of the outer channel. Abnormal meteorological conditions affect all tides and they may be reduced or increased by as much as 0·6 m.

Arrival information

Port operations

7.425

1 Deep-laden tankers must be given right of way and space to manoeuvre within the limits of the entry channels. Speed of vessels passing through the outer channel should be reduced to moderate or slow when passing close to shoal patches to avoid squat and canal action. Outward bound it is recommended that speed be reduced before rounding Turning Light-buoy (24°54′·9N 51°39′·2E), and that passage through Main Channel be made at slow speed to avoid squat and heel under helm effect.

Vessel Traffic Service

7.426

1 Vessel Traffic Service Scheme is in operation for the control of shipping. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

7.427

1 Send ETA at Mishut Light-buoy 72 hours in advance, and confirm 48, 24 and 12 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage

7.428

1 See 7.395.

Prohibited anchorage. Anchoring is prohibited in the vicinity of two submarine pipelines extending ENE from the coast S of Jabal Wakrah (25°09′N 51°37′E) to the Al 'Idd ash Sharqī Oilfield (25°30′N 52°23′E). QPC North Light-buoy (special) (25°14′·0N 51°45′·5E) and QPC South Light-buoy (special) (25°08′·4N 51°42′·1E) indicate the N and S limits of the prohibited area which lies across both East and West Channels.

Pilots

7.429

1 Pilotage is compulsory for berthing, shifting or unberthing for all vessels carrying general cargo, hydrocarbons, chemicals or ammonia. Channel pilotage is compulsory for all vessels exceeding a length of 200 m, a beam of 40 m, or draught of 9 m (vessels carrying hydrocarbons 8 m). Pilot boards 1 mile NE of Mesaieed Approach Light-buoy (25°12·5N 51°44′4E) or, for vessels exempt from channel pilotage, in the vicinity of Inner Fairway Light-buoy (24°54′·6N 51°36′·5E). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.430

1 Tugs are available and their use is compulsory for all berthing operations with the exception of N Berth SBM; use at No 19 berth at pilot's discretion.

Traffic regulations

7.431

1 **Restricted area.** North Berth SBM (7.448) lies in a restricted area; vessels are prohibited from entering this area unless a pilot is embarked and permission has been obtained from the Qatar Petroleum Company.

Buoyage

7.432

1 Some buoys and beacons may not conform with the IALA Maritime Buoyage System – Region A.

Harbour

General layout

7.433

1 The main quays and jetties of Mesaieed all lie SSE of the town and SSW of Dawḩat Musay 'id; N Berth SBM lies about 1¼ miles offshore in the S part of the main harbour area.

Natural conditions

7.434

1 **Tidal streams.** In the N approaches, W of Ruqq Quraynayn (25°06′N 51°55′E), the tidal streams set nearly parallel with the shore and do not usually exceed a rate of 1 kn. It should be noted that at the outer channel entrance the stream continues to set S for some time after the actual height of the tide has begun to fall. In the approach channels the in-going stream sets SSW and the out-going NNE at rates of up to 2 kn; cross sets are experienced particularly in the N part of the outer channels, and at its S end in the vicinity of SE ‘Ārif Light-buoy.

2 In Main Channel between Fasht al ‘Ārif (24°56′N 51°41′E) and Fasht al ‘Udayd, 4 miles SE, the in-going stream sets SSW and the out-going NNE and can attain rates of more than 2 kn; there is little tidal stream SW of Fasht al ‘Ārif. In North Inner Channel, between No 3 and No 4 Inner Light-buoys, high water occurs about 1 hour after high water at the seaward end of the outer channels; the rise of the tide can be slightly greater. Cross sets may be experienced in the channel between S ‘Ārif Light-buoy (24°53′·7N 51°43′·2E) and Turning Light-buoy, 4 miles NNW.

Other aids to navigation

7.435

1 **Racons:**

Doha Light-float (25°16′·4N 51°45′·1E).
Hul Light-buoy (25°02′·9N 51°41′·9E).
SE Arif Light-buoy (24°53′·7N 51°43′·2E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 7.356)

7.436

1 From the pilot boarding position, 1 mile NE of Mesaieed Approach Light-buoy (W cardinal) (25°12′·5N 51°44′·4E), the recommended entry track leads a short distance SW to the outer junction of East Channel (7.437) with West Channel (7.438).

East Channel

7.437

1 From Mesaieed Approach Light-buoy the recommended track leads S to pass E of E–01 Light-buoy (lateral) (25°10′·8N 51°44′·2E) moored at the outer end of East Channel; the channel, marked by numbered light-buoys (lateral), leads generally S then SW for about 21½ miles to SE Arif Light-buoy (24°53′·7N 51°43′·2E) moored at its junction with West Channel and Main Channel.

Useful marks:

Ḩālat Umm al Khayfān Light (25°09′·1N 51°57′·6E) (7.353).

2 Fasht al ‘Udayd North Beacon (position approximate) (24°52′·9N 51°46′·2E) standing on the N side of Fasht al ‘Udayd (7.379); a pipe-head rises 2½ NE of the beacon.

West Channel

7.438

1 From Mesaieed Approach Light-buoy the recommended track leads initially SW, for about 20 miles to Wakrah Light-buoy (W cardinal) (25°09′·3N 51°41′·9E); then S passing W of QPC South Light-buoy (7.428), 1 mile S, and Hul Light-buoy (W cardinal), 6½ miles S. The track continues S passing through a gap in the coastal bank, whose limits are marked by numbered light-buoys (lateral) and by W–07 Light-buoy (E cardinal) (24°58′·3N 51°42′·6E), to SE Arif Light-buoy (24°53′·7N 51°43′·2E) moored at its junction with East Channel and Main Channel. A dangerous wreck (25°00′·6N 51°42′·9E) lies on the shoal area E of track, about 4 cables E of W–04 Light-buoy (lateral).

2 **Caution.** Occasional heavy overfalls are a feature of West Channel, E of Ra’s al ‘Ilāj, in the vicinity of the gap in the coastal bank.

Useful marks:

Umm al Ḩūl beacon (red and white metal framework tower, 15m high, black triangle topmark) (25°05′·0N 51°36′·8E) standing close N of the ruined village of Umm al Ḩūl.

Ra’s al ‘Ilāj Beacon (25°01′·2N 51°37′·7E) (red and white metal framework tower, 15 m high, black square topmark).

3 Jasūrah Beacon (metal framework tower, black diamond topmark) (24°58′·6N 51°40′·0E) stands on the N end of Fasht al ‘Ārif, a drying reef, extending about 7 miles SE from the coast between Ra’s al ‘Ilāj and Dawḩat Musay ‘īd (7.414); the reef shows up well in most conditions.

Shahin Beacon (metal pole, black triangle topmark) (24°57′·0N 51°41′·1E), Jamila Beacon (metal pole white triangle topmark), 3½ miles SSE, and Nasr Beacon (metal pole, black diamond topmark), 4¼ miles SSE, all standing on, or near the E edge of, Fasht al ‘Ārif.

4 A light-beacon (24°55′·0N 51°41′·6E) stands at the S end of a dangerous shoal off the SE part of Fasht al ‘Ārif marking a tide gauge; a dangerous detached coral reef, with a least depth of 0·9 m, lies 3 cables SE of the gauge.

Main Channel

7.439

1 From SE Arif Light-buoy (E cardinal) (24°53′·7N 51°43′·2E) the track leads about 3¼ miles SW to S Arif Light-buoy (24°51′·1N 51°41′·1E) (S cardinal).

North Inner Channel

7.440

1 From S Arif Light-buoy the track leads generally N, then W, passing (with reference to Turning Light-buoy (24°54′·9N 51°39′·2E)):

W of No 1 Inner Light-buoy (starboard hand) (2½ miles SSE) moored SW of the shoal spit, with a least depth of 4·5 m, extending SSW from Fasht al ‘Ārif, thence:

E of No 2 Inner Light-buoy (port hand) (1½ miles SE), thence:

2 Between No 4 Inner Light-buoy (port hand) (9 cables SE) moored close E of an obstruction, with a least depth of 9 m; and WSW of No 3 Inner Light-buoy (starboard hand) moored 1½ cables ENE over a shoal patch with a least depth of 7·7 m. Thence

E and N of Turning Light-buoy (N cardinal) and through into the Fairway Channel, thence:

Clear of Mesaieed Fairway Light-buoy (safe water) (2½ miles W) and through into the main port area.

3 **Useful marks:**

Ghazāl Beacon (24°56′·3N 51°39′·6E) (ruins awash) on the W side of Fasht al ‘Ārif.

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Al Bushayrīyah Beacon (24°58′·0N 51°37′·2E) (metal framework tower, black square topmark, 12 m high) standing on an islet of the same name on the W side of Fasht al ‘Ārif, E of Dawḩat Musay ‘id.

South Inner Channel

7.441

1 South Inner Channel leads from S Arif Light-buoy (24°51′·1N 51°41′·1E) W, then NW for about 8 miles between a gap in the shoals to the vicinity of S Anchorage Light-buoy (port hand) (24°53′·0N 51°33′·9E); the channel, marked by light-buoys (lateral), is for use by shallow draft vessels when instructed by Mesaieed Vessel Traffic Control (7.426).

Useful marks:

Two pairs of light-beacons, alignment 270°, stand on the shore about 5 cables WSW of Q-Chem Chemical Berths (7.449).

2 Northern light-beacons in line: No 2 front light-beacon (red circle on beacon) (24°53′·4N 51°32′·4E) and No 7 rear light-beacon (white triangle on beacon), 350 m W.

Southern light-beacons in line: No 1 front light-beacon (white diamond on beacon) (24°53′·3N 51°32′·4E) and No 8 rear light-beacon (white triangle on beacon), 320 m W.

Directions for berths

North Approach Channel

7.442

1 From the vicinity of Mesaieed Fairway Light-buoy (24°54′·6N 51°36′·5E) the Northern Quays (7.445) are approached NNW through North Approach Channel, marked by numbered light-buoys (lateral), which leads to a dredged area of various depths, whose limits are marked by light-buoys (lateral). A spoil ground lies between the outer ends of North and South Approach Channels; a light-buoy (special) (24°54′·9N 51°35′·6E) is moored off its SE corner.

South Approach Channel

7.443

1 From a position W of Mesaieed Fairway Light-buoy (24°54′·6N 51°36′·5E) the Southern Quays (7.446) are approached NW through South Approach Channel, marked by numbered light-buoys (lateral) which leads to an area, dredged to 13 m, whose limits are marked by light-buoys (lateral).

Berths

Anchorage berths

7.444

1 Inner anchorages are situated N and S of Fairway Channel and SSW of S Anchorage Light-buoy (24°53′·0N 51°33′·9E); emergency anchorages are situated N of the junction of East Channel with West Channel, SE of Main Channel and W of the S end of North Inner Channel.

Berths	*Usage and description*
A1–A6	Non hydrocarbon vessels; good shelter from the *shamāl* and protected by reefs from the *nashī*.
B1–B3	Non hydrocarbon vessels; good shelter from the *shamāl* and protected by reefs from the *nashī*.
C1–C3	Small tankers.
M3–M7	Emergency use only.
P1–P3	Mooring buoys (lit) for barges and tugs awaiting alongside berths; good shelter.
S1–S2	Chemical tankers and general cargo vessels.
T1–T6	Large tankers and bulk carriers; good holding ground.

2 **Prohibited anchorage.** Anchorage is prohibited in an area extending E from the shore which encloses N Berth SBM, the Natural Gas Loading Jetty and the Multi Product Berth.

Alongside berths

7.445

1 The main alongside berthing facilities comprise a line of quays and jetties extending about 5½ miles SSW from Dawḩat Musay ‘id.

Northern Quays are approached through the North Approach Channel (7.442). On the N quay are Gabbro Berths used for the handling of crushed stones; the quay has overall length of about 490 m and an alongside depths of 13·5 m. A short extension NW from its SE corner provides a short berth with alongside depth of 6 m. Lights are exhibited from each end of the main quay and at the head of the short quay. Mesaieed Ship Repair Yard lies within a small basin between Gabbro and QASCO berths; see 7.450.

2 QASCO (Qatar Steel Company) berths, used for ore and scrap imports and export of finished steel, are situated on the middle quay, have an overall length of about 790 m with alongside depths of 15 m. General cargo berths 4 and 5 lie immediately SSW and have an overall length of about 600 m with alongside depths of 13 m. Refinery Berth 6 used for heavy fuels and white oil products lies at the S end of the quay; it has an overall length of 238 m with alongside depths of 13 m. General cargo berths 9 and 10 are situated on the S quay which has an overall length of about 400 m and alongside depths of 10 m; a light is exhibited from the N end of Berth 9 on the E side of the entrance to a small boat harbour.

7.446

1 **Southern Quays** are approached through South Approach Channel (7.443). Berth 16, used for the export of petro-chemicals, is situated on the most N quay which has an overall length of 250 m and alongside depths of 13 m. Berths 18 and 19, used for the export of polyethylene and liquid ethylene, are situated on the most S quay which has an overall length of about 600 m and alongside depths of 13 m; a beacon (metal post) stands close SW of the S end of the quay.

7.447

1 **Qatar Fertilizer Company (QAFCO) Berths** are approached close SW of the South Approach Channel. Berths 20 and 21 on the N jetty are used for the import of grain and ammonia and the export of fertilizers, the jetty has an overall length of about 500 m with alongside depths of 12 m. Berths 22 and 23 on the S jetty are used for the export of fertilizers, the jetty has an overall length of about 740 m with alongside depths of 12·5 m. A dolphin (lit) stands close offshore at the head of a submarine water intake pipe between the two jetties; a second intake pipe lies close S. Lights are exhibited from the heads of both jetties; MSH 2 Light-buoy indicates the SSW side of the dredged limits.

7.448

1 **Oil and Gas Terminals.** North Berth SBM (24°53′·7N 51°35′·0E), enclosed by a restricted area (7.431), is moored in a depth of 19·6 m about 1¼ miles offshore and can handle vessels up to 320 000 dwt; a light is exhibited from the buoy. A light-beacon (red and white, white diamond topmark) on shore indicates the landing of the submarine pipelines serving the berth.

NGL Jetty (24°54′·2N 51°33′·8E), a T-headed jetty aligned NE-SW, extends about 275 m SSE from the shore in the vicinity of the liquid gas plant; mooring dolphins numbered 1 to 4 lie NE and SW of the berth; lights are exhibited from the outer dolphins.

7.449

1 **QP Multi Product Berth** (MPB) (24°53′·8N 51°33′·2E) consists of a short quay, about 90 m in length, with alongside depths of 14 m; mooring dolphins lie NE and SW. Q-Chem Chemical Berths 1 and 2 are situated on a longer quay about 2 cables SW, this quay is about 370 m in length with alongside depths of 12 m; cranes stand on the quay.

Port services

Repairs

7.450

1 Mesaieed Ship Repair Yard with dry dock of 3600 tonnes capacity, synchrolift of 500 tonnes and a repair quay.

Other facilities

7.451

1 Medical facilities; hospital at Doha; no oily waste reception facilities.

Supplies

7.452

1 Fuel oil; fresh water; stores; provisions.

Communications

7.453

1 International airport at Doha.

CABLE BANK TO RA’S LAFFĀN

General information

Charts 2886, 2523

Route

7.454

1 From a position W of Cable Bank (26°47′N 52°32′E) the route leads SW for about 65 miles to Ra’s Laffān Fairway Light-buoy (25°55′N 51°42′E).

Topography

7.455

1 Al Jussāsīyah, a hill, 16 m high, stands 10 miles WNW of Ra’s Laffān (25°55′N 51°35′E) and makes a good landmark, rising a short distance inland at the head of a small bay situated between the village of Al Ḩuwaylah and Ra’s al Marrūnah. Jabal al Fuwayriţ (26°03′N 51°22′E), a conspicuous long ridge of limestone, 17 m high at its S end, stands near the coast between the villages of Al Fuwayriţ and Al Ghārīyah. Ra’s Umm Ḩaşāh (26°06′N 51°22′E), from which a light (white beacon) is exhibited, lies N of Al Ghārīyah. Al Mafjar, a village with a hillock about 1 mile WNW, is situated about 3½ miles WNW of Ra’s Umm Ḩaşāh; from NE the village becomes visible before Ra’s Rakan (26°11′N 51°13′E) can be seen. Ra’s Rakan is the NW extremity of a low sandy islet standing on a drying reef, about 2½ miles NW of the N extremity of the Qatar Peninsula.

Depths

7.456

1 There are many shoal areas and banks, with depths of less than 20 m, off Ra’s Rakan and a number of dangerous wrecks and wellheads whose positions are shown on the chart. Steeply rising coral patches may exist in this area; fresh water springs, which can cause false readings from echo sounders, are known to exist.

Hazard

7.457

1 Due to the existence of numerous wellheads lying up to 50 miles offshore between Ra’s Laffān and Ra’s Rakan, the Qatar General Petroleum Corporation advise that anchoring within this area is not recommended; wellheads may stand up to 6 m above the sea bed.

Diving operations

7.458

1 A diving research area, centred on a light-buoy (special) (26°04′·0N 51°33′·6E), lies about 9 miles N of Ra’s Laffān.

Principal mark

7.459

1 **Major light:**

Ra’s Rakan Light (metal framework tower on piles; 14 m high) (26°11′·9N 51°13′·2E) exhibited from the N edge of the coastal reef NNE of Ra’s Rakan.

Other aids to navigation

7.460

1 **Racons:**

Al Shaheen Oilfield (six platforms are equipped with racons) (26°36′N 52°00′E).

Ra’s Laffān Fairway Light-buoy (25°55′·0N 51°42′·0E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

7.461

1 From a position W of Cable Bank (26°47′N 52°32′E) and clear of SPD–11 production platform (lit), standing 12 miles W, the track leads SW, passing:

SE of SPD–8 production platform (26°41′N 52°17′E) and SPD–4, 4½ miles SE; and all platforms within the SE part of the South Pars Gasfield, note additional platforms have been established in the gasfield; see 7.5. Thence:

Clear of SPD–9 production platform (26°38′N, 52°21′E), thence:

2 NW of Shah Allum Shoal (26°25′N 52°30′E), a dangerous rocky shoal with a depth of 2·7 m over it; a light-buoy (isolated danger) is moored over its E side. The ruins of a light-tower stand near its centre; a wreck, with a least depth over it of 14·1 m, lies S of the tower. Thence:

SE of Al Shaheen Oilfield (26°36′N 52°00′E) (7.462) and clear of WHP–6 production platform (26°31N 52°12′E) (lit) standing about 12 miles ESE of the central platform of the oilfield; see 7.5. Thence:

3 SE of WH3 production platform (26°27′N 52°04′E) (lit) standing in the SE part of North Field (Bravo) Gasfield; a flare burns from the fields central control platform (lit). And:

NW of DOL–1 Production Platform (26°19′N 52°14′E) (lit) and DOL–2 Platform (lit), 8¼ miles SW; a dangerous wreck (position approximate) lies 3¼ miles SSE. Thence:

SE of a shoal (26°14′N 51°53′E) with a least depth of 13·1 m on which is a wellhead with a least depth over it of 7 m, thence:

4 NW of a wreck (position approximate) (26°05′N 51°56′E) over which is a safe clearance depth of 10 m, thence:

NW of the dangerous wreck of a barge (25°58′N 51°53′E) marked by a light-buoy (special) moored close W. A dangerous wreck marked by N and S Bever Light-buoys (N and S cardinal) lies 6½ miles farther E, and a shoal (reported 1986), with a least depth of 8·2 m, lies 1 mile S. Thence:

Through to the vicinity of Ra's Laffān Fairway Light-buoy (25°55′N 51°42′E) and the pilot boarding position.

Al Shaheen Oil Terminal

General information

7.462

1 **Position and function.** Al Shaheen Oil Terminal (26°35′N 51°59′E) is situated within the area of the North Field Gasfield which lies about 45 miles NNE of Ra's Laffān (7.467); the terminal services the Al Shaheen Oilfield. *Knock Nevis*, a floating storage unit is moored to an SPM about 1¾ miles WSW of the main platform; SBM Berth 2 is moored about 1½ miles E of the platform.

Approach and entry. The anchorage and pilot boarding position may be approached from E.

Traffic. In 2004, the terminal was used by 34 vessels with a total of 8 974 104 dwt.

2 **Port Authority.** Maersk Oil Qatar AS, Standard Charted Bank Building, Abdulla Bin Jassim Street, PO box 22050, Doha, Qatar.

Traffic density. The terminal is located close to major shipping lanes; traffic in the area can be heavy.

Depths. See 7.456.

Maximum size of vessel handled. The terminal can handle vessels up to 500 000 dwt.

3 **Notice of ETA required.** Send ETA 7 days, 5 days, 72 hours, 48 hours and 24 hours prior to arrival and updated if more than three hours alteration; vessels should contact *Knock Nevis* on VHF when within range. See *Admiralty List of Radio Signals Volume 6 (3).*

Anchorage may be obtained in depths of over 60 m about 3 miles SE of No 2 SBM.

Prohibited anchorage. Anchoring is prohibited within the restricted area surrounding the terminal.

4 **Pilotage** is compulsory within 1500 m of the berth; mooring master boards in the anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs are available.

Restricted area. A restricted area surrounds the terminal and the oil and gas fields; see 7.5.

General layout. The oilfield, which has five production platforms interconnected by submarine pipelines.

Other aids to navigation. Racons transmit from all production platforms.

Al Rayyan Oil Terminal

General information

7.463

1 **Position and function.** Al Rayyan Oil Terminal (26°39′N 51°34′E) (lit and flare) is situated about 45 miles N of Ra's Laffān (7.467); *Pacific Jewel* (lit), a floating storage unit, is moored to an SBM about 7 cables WSW of the Al Rayyan Oilfield production platform.

Approach. The anchorage and pilot boarding position may be approached from NE.

Traffic. In 2004, the terminal was used by 4 vessels with a total of 1 090 081 dwt.

Port Authority. ARCO Qatar Inc, PO Box 22777, Doha, Qatar.

Limiting conditions

7.464

1 **Depths**. See 7.456.

Maximum size of vessel handled. The terminal can handle vessels up to 320 000 dwt.

Arrival information

7.465

1 **Notice of ETA required.** Send ETA as soon as possible, but not later than 72 hours, then at 48 and 24 hours prior to arrival; vessels should contact the terminal on VHF when within range. See *Admiralty List of Radio Signals Volume 6 (3).*

Pilotage is available but not compulsory; pilot boards in the vicinity of the anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Restricted area. A restricted area surrounds the terminal and oilfield; see 7.5.

2 **Traffic density.** The terminal is located close to major shipping lanes and traffic in the area can be heavy.

Anchorage may be obtained in depths of about 30 m 2½ miles NE of the storage unit; a submarine power cable, laid ESE from the centre of the oilfield to North Field (Alpha) Gasfield, lies SSW of the anchorage.

Anchorage and harbour

Chart 3950

Khawr Shaqīq

7.466

1 **Description.** Khawr Shaqīq is a shallow inlet entered between Ra's an Nawf (25°39′N 51°33′E), a low rocky point, and Ra's al Maţbakh, 1½ miles NE, from which a light (7.487) is exhibited. A channel, marked by light-beacons (lateral) and leading lights, 50 m wide and dredged to 1·5 m (1989), leads to a jetty in the vicinity of the ancient city of Al Khawr at the head of the inlet.

Landmarks.

Al Jubail (25°42′·1N 51°34′·9E), a 10 m high hill, stands near the coast about 1½ miles N of Ra's al Maţbakh; several towers, up to 12 m high, stand on rising ground in the vicinity of Al Khawr.

2 **Approach.** Fasht Arḑ an Nawf (25°40′N 51°38′E) is a plainly visible drying reef on the coastal bank E of Ra's al Maţbakh; heavy seas break over it when the *shamāl* is blowing; the red sector of Ra's al Maţbakh Light covers the reef. Fasht al Hurābī (25°33′N 51°38′E) is a drying reef about 8 miles SSE of the entrance, the reef is not clearly visible and should be given a wide berth; Burnaat Maraqqat, a similar reef, lies off the coast 3½ miles NW; drying rocks (existence doubtful) lie in this area.

Anchorage may be obtained in depths of over 5 m off the entrance to Khawr Shaqīq, about 2 miles E of Ra's an Nawf.

RA'S LAFFĀN

General information

Charts 3791, 3789

Position and function

7.467

1 Ra's Laffān (25°55′N 51°35′E) is situated on the NE corner of the Qatar Peninsula; it is a purpose built port for the export of liquid natural gas.

Topography

7.468

1 The interior is very low and sandy; the shores are fringed by a narrow coastal reef.

Port limits

7.469

1 Ra's Laffān port limits include the harbour area and the whole of the entrance channel out to a line E of the Fairway Light-buoy.

Approach and entry

7.470

1 Ra's Laffān may be approached from NE to the vicinity of Ra's Laffān Fairway Light-buoy (25°55′N 51°42′E) and the pilot boarding position; the port is entered through a, 280 m wide, dredged channel marked by light-buoys (lateral).

Traffic

7.471

1 In 2004, the terminal was used by 162 vessels with a total of 14 786 066 dwt.

Port Authority

7.472

1 Qatar Petroleum, Port of Ra's Laffān, PO Box 22247, Doha, Qatar.

Limiting conditions

Controlling depth

7.473

1 The entrance channel is dredged to 15 m (1993); the E part of the main basin to 13·5 m (1993).

Deepest and longest berth

7.474

1 The dry cargo quay has an overall length of 600 m and an alongside of 13·5 m.

Tidal levels

7.475

1 Mean spring range about 1·1 m; mean neap range about 0·4 m. See *Admiralty Tide Tables Vol 3.*

Density of water

7.476

1 The density of the water is 1·029–1·030 g/cm^3.

Maximum size of vessel handled

7.477

1 The port can handle vessels up to 345 m in length with a maximum draught of 12·5 m; Condensate Berths can handle vessels up to 152 000 dwt.

Arrival information

Port operations

7.478

1 Arriving vessels should have their propeller(s) submerged with a stern trim of not exceeding 3 m.

Notice of ETA required

7.479

1 Send ETA at 7 days, then 72 and 24 hours prior to arrival with notification of variations in excess of 4 hours within the last 24 hours; contact port control on VHF when within 6 hours of arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

7.480

1 Anchorage may be obtained in depths over 20 m in Anchorage 1 centred about 2¼ miles NNW of Ra's Laffān Fairway Light-buoy (25°55′N 51°42′E); or in Anchorage 2 centred about 3½ miles E in similar depths. See 7.481.

Submarine cables and gas pipelines

7.481

1 Submarine gas pipelines from the North Field Gasfields (26°33′N 52°07′E) land on the coast between Ra's Qartas (25°57′N 51°31′E) and the port. Care should be taken not to anchor near the submarine cable laid E of the port which passes NE of Anchorage 1 and W of Anchorage 2; see 1.17.

A submarine cable extends about 2½ cables ESE from the main breakwater head to a current meter laid within a prohibited area.

Pilotage

7.482

1 Pilotage is compulsory for all vessels navigating within the port limits except, at the sole discretion of the Port Management, vessels of less than 75 m length, authorised supply vessels, official vessels of the State of Qatar and any other vessels as exempted by the port management. The pilot boards 1 mile ENE of Ra's Laffān Fairway Light-buoy. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

7.483

1 Tugs are available.

Traffic regulations

7.484

1 **Prohibited areas** extend E from the heads of both breakwaters on each side of the channel.

Harbour

General layout

7.485

1 Ra's Laffān Harbour lies within two large protective breakwaters extending about 2½ miles NE from the coast; the harbour has berths for handling LNG, liquid products, general cargo and Ro-Ro traffic.

A sea water intake channel, protected by breakwaters, extends N from the shore close W of the port; lights are exhibited from the outer end of its breakwaters.

Development

7.486

1 The port is undergoing further development; work is in progress (2004) on new liquid product berths.

Principal marks

7.487

1 **Landmarks:**

A radio tower (obstruction lights, 98 m high) (25°55′·0N 51°34′·3E) stands close W of the root of the main breakwater; another tower (91 m high) stands 2¾ miles SSW.

Two flares burn near the elbow of the main breakwater (25°56′·3N 51°36′·1E) and in the tank farm at the breakwater root; flares also burn within the LNG plant.

2 **Major light:**

Ra’s al Maţbakh Light (tripod, 11 m high) (25°40′·8N 51°34′·7E); the red sector of the light covers Fasht Arḑ an Nawf (7.466).

Other aid to navigation

7.488

1 **Racon:**

Ra’s Laffān Fairway Light-buoy (25°54′·9N 51°42′·0E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

7.489

1 **Ra’s Laffān leading line:**

Front light-beacon (orange triangle apex up on white beacon, 11 m in height) (25°55′·8N 51°36′·0E) standing in the N part of the harbour close N of the main central quay.

Rear light-beacon (orange triangle apex down on white beacon, 22 m in height) (900 m W) standing on Main Breakwater.

2 From the vicinity of Ra’s Laffān Fairway Light-buoy (safe water) (25°55′N 51°42′E) the alignment (278°) of these light-beacons leads about 4 miles W through the channel, marked by light-buoys (lateral), and between the outer breakwater heads from which lights (lateral) are exhibited.

Useful marks:

A light (25°55′·8N 51°37′·2E) exhibited from a short spur breakwater extending SSW from the outer end of Main Breakwater.

3 The port control tower (25°55′·7N 51°36′·1E) standing on the N corner of the main central quay.

Basins and berths

7.490

1 **Outer Basin.** In the NW part of the outer basin two LNG berths lie off the Main Breakwater; dry cargo berths are situated on the NE side of the main central quay; two liquid product berths are either side of a pier which extends NNW from Lee Breakwater. All berths in the outer basin have alongside depths of 13·5 m; lights are exhibited from LNG Berth 1 and the outer end of the liquid product berths; light-buoys are moored in the vicinity of the new liquid product berths. Coastguard mooring buoys are laid either side of Main Breakwater’s inner spur.

2 **Inner Basin.** A Ro-Ro berth is situated on the inner side of the main quay with alongside depths of about 9 m; lights are exhibited from the berth and the inner part of the quay. New Service Berths 1 to 7 lie WSW on an extension of the main central quay which extends SE into the inner basin; tug berths and a slip are situated in the NW part of the basin; the New Service Berths are close SW.

Port services

Repairs

7.491

1 There are no repair facilities.

Other facilities

7.492

1 Hospital at Doha.

Supplies

7.493

1 Fuel oil; fresh water; stores.

Communications

7.494

1 International airport at Doha.

NOTES

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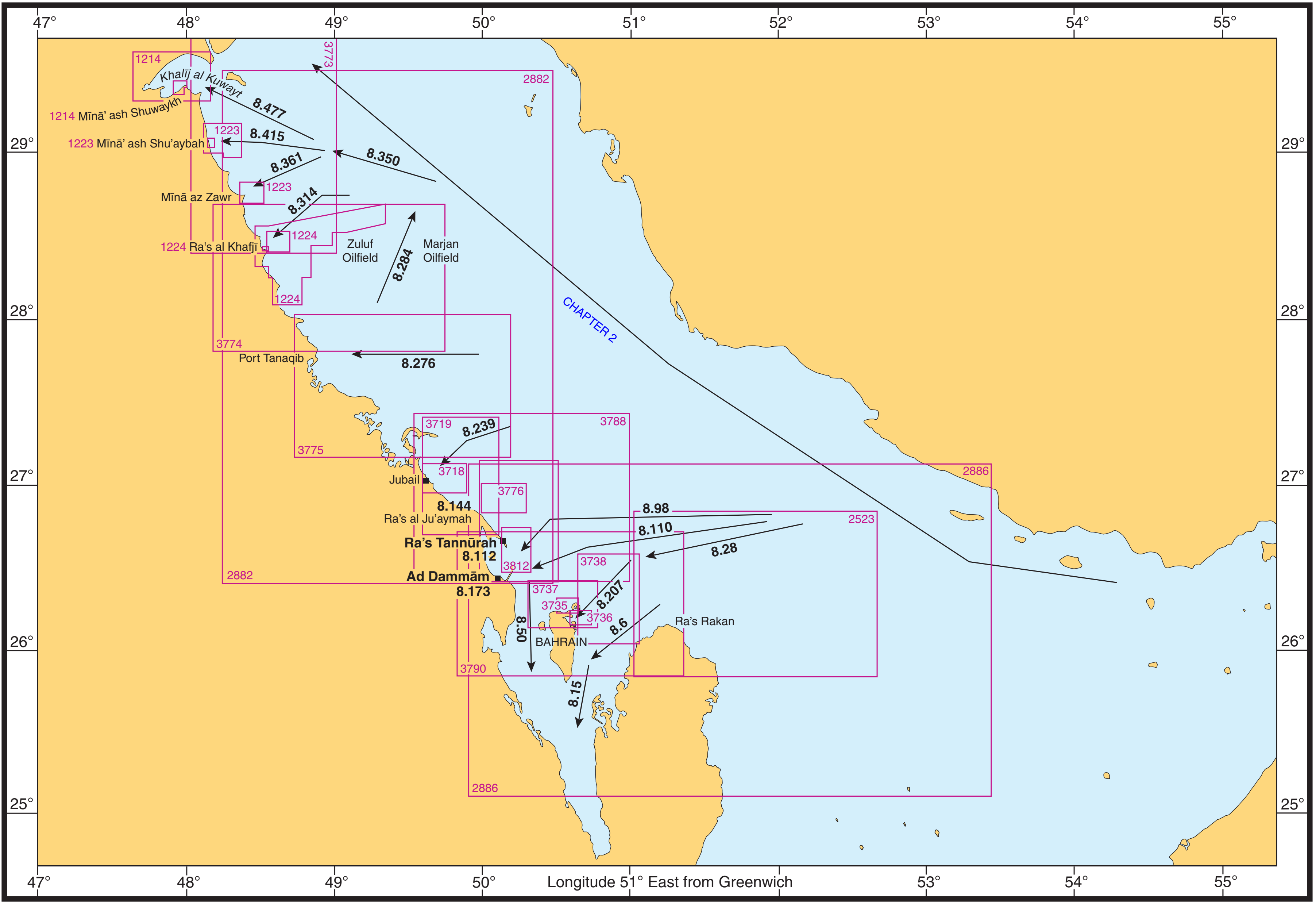
Chapter 8 - Persian Gulf, western side - Ra’s Rakan to Al Kuwayt



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CHAPTER 8

PERSIAN GULF WESTERN SIDE — RA’S RAKAN TO AL KUWAYT

GENERAL INFORMATION

Chart 2847

Scope of the chapter

8.1

1 This chapter describes coastal routes and port approaches along the W coast of Persian Gulf from Ra’s Rakan (26°11′N 51°13′E) to Khalīj al Kuwayt (29°27′N 48°02′E) including Jazīrat Faylakāh (28°26′N 48°20′E) and its adjacent islets.

The chapter is divided into the following sections:

Western side of Al Qatar and Dawḩat Salwá (8.5).
Bahrain (8.23).
Dawḩat Salwá to Ra’s al Ju‘aymah (8.97).
Ra’s al Ju‘aymah to Ra’s as Saffānīyah (8.216).
2 Ra’s as Saffānīyah to Ra’s Bard Ḩalq (8.282).
Kuwait (8.341).

The major ports described are:

Bahrain (26°11′N 50°39′E) (8.50).
Ad Dammām (26°30′N 50°12′E) (8.173).
Ra’s al Ghār (26°54′N 49°52′E) (8.219).
Jubail (27°01′N 49°40′E) (8.239).

And the ports of:

Mīnā’ al Manama (26°14′N 50°34′E) (8.41).
3 King Abdul Aziz Naval Base (26°58′N 49°42′E) (8.264).
Port Tanāqīb (27°47′N 48°52′E) (8.276)
Mīnā’ Ra’s Mish‘āb (28°07′N 48°38′E) (8.291).
Port of Ra’s al Khafjī (28°25′N 48°32′E) (8.337).
Ra’s al Qulay’ah Naval Base (28°52′N 48°17′E) (8.355).
Mīnā’ ash Shu‘aybah (Shuaiba) (29°03′N 48°10′E) (8.415).
Mīnā’ ash Shuwaykh (Al Kuwayt Harbour) (29°21′N 47°56′E) (8.477).

4 Oil and liquid gas loading terminals described are:

Ra’s Tannūrah (26°38′N 50°10′E) (8.112).
Ra’s al Ju‘aymah (26°49′N 50°00′E) (8.144).
Ra’s al Khafjī Oil Terminal (28°27′N 48°36′E) (8.314).
Mīnā’ az Zawr (Mīnā’ Sa’ūd) Oil Terminals (28°45′N 48°27′E) (8.361).
Mīnā’ ‘abd Allāh (Mina Abdulla) Sea Island Oil Terminal (29°02′N 48°12′E) (8.387).
Mīnā’ al Aḩmadī Oil Terminal (29°04′N 48°09′E) (8.444).

Topography

8.2

1 The coast between Ra’s Rakan (26°11′N 51°13′E) and the N entrance point to Al Kuwayt, 260 miles NW, is a low, sandy or stony, desert with occasional small hills. Except near Al Qaţīf (26°33′N 50°00′E), and a few places where date palms grow, the only vegetation is coarse grass growing in tufts on the sandhills with the occasional small brushwood; large tracts of land are uninhabited.

Offshore oilfields

8.3

1 Production platforms and associated structures, including tanker moorings, storage tankers and platforms on pipelines, generally exhibit Mo(U) lights, aircraft obstruction lights, and sound audible fog signals. Unauthorised navigation is prohibited within 500 m of all such structures including storage tankers which can swing about their moorings. Tankers manoeuvring in the vicinity of platforms and moorings should be given a wide berth; see *The Mariner’s Handbook.*

2 Within the areas covered by larger scale charts, certain fixed structures, pipelines and cables have been omitted from the smaller scale charts due to their complexity and frequent change. The appropriate larger scale charts should always be used in these areas and vessels should navigate with particular caution.

3 **Restricted oilfield areas.** The Saudi Seaports Authority advise mariners not to enter the restricted oilfield areas, shown on the charts. In addition, and in accordance with Saudi Seaports Authority Notices to Mariners, the majority of production platforms and their associated structures have been omitted from charts within the Saudi Arabian EEZ.

Artificial reefs

8.4

1 Artificial reefs, not exceeding 2 m high with at least 6 m of water over them, have been established off some of the reefs described in this chapter; caution should be exercised when navigating in their vicinity.

WESTERN SIDE OF AL QATAR AND DAWḨAT SALWÁ

GENERAL INFORMATION

Chart 2886

Area covered

8.5

1 This section describes the coast between Ra’s Rakan (26°11′N 51°13′E) and Jazīrat Ḩawār (25°40′N 50°45′E), the W entrance point to Dawḩat Salwá (8.15), and includes the NE approaches to Dawḩat Salwá, passing E of Bahrain.

It is arranged as follows:

Ra’s Rakan to Jazīrat Ḩawār (8.6).
Dawḩat Salwá and North-east Approach (8.15).

RA’S RAKAN TO JAZĪRAT ḨAWĀR

General information

Charts 2886, 3790

Route

8.6

1 From a position NW of Ra’s Rakan Light (26°11′·9N 51°13′·2E) the approach to Dawḩat Salwá, passing E of Bahrain, leads SSW for 25 miles to a position WSW of Ra’s ‘Ushayrij (25°59′N 50°59′E).

Topography

8.7

1 Between Ra’s Rakan (26°11′N 51°13′E) and Ra’s ‘Ushayrij, 18 miles SW, a low rocky point on which stands a conspicuous minaret, the coast is low and light in colour, it is difficult to distinguish especially when enveloped in the prevailing haze; landing, except at high water, is difficult due to the coastal reef. At high water springs between Al Jumayl (26°06′N 51°09′E) and Al Khuwayr, 4 miles SW, the coast is breached causing flooding; towards Ra’s ‘Ushayrij it is sandy and irregular with occasional rocky outcrops. All the villages are reported deserted and in ruins though a few fishermen sometimes camp temporarily among them.

Depths

8.8

1 A least depth of 2 m lies 4 miles SSE of Ghumais the S end of Qit’at ash Shajarah (26°02′N 50°51′E).

Off-lying danger

8.9

1 An isolated coral head (position approximate), with a least depth of 1·8 m, lies off the coastal reef about 2 miles WNW of Ra’s Rakan Light (26°11′·9N 51°13′·2E); in a good light the reef is plainly visible.

Tidal streams

8.10

1 From Ra’s Rakan the in-going stream sets S along the coast towards Bahrain and into Dawḩat Salwá (8.15); the streams for the most part are weak and the rise and fall is slight, but there are heavy tide rips in Dawḩat Salwá, S of Bahrain, caused by sudden alterations in depth.

In the vicinity of Fasht ad Dībal (26°16′N 50°57′E) the in-going stream sets S; vessels should keep well N of the reef.

Principal marks

8.11

1 **Landmarks:**

Three prominent towers and a radio station (26°04′N 51°05E) stand near the shore at Al Khuwayr.

A prominent tower (25°59′N 51°00′E) stands on the N end of Ra’s ‘Ushayrij; a fort stands inland about 3 miles E of the point.

2 **Major light:**

Ra’s Rakan Light (26°11′·9N 51°13′·2E) (7.459).

Directions

8.12

1 From a position NW of Ra’s Rakan Light (26°11′·9N 51°13′·2E) the route leads SSW, passing:

ESE of Fasht ad Dībal (26°16′N 50°57′E); Fasht ad Dībal N Light-beacon (metal pedestal on concrete base) stands on the N part of the reef which, in a good light, can be seen at all states of the tide; a similar light-beacon stands 1¼ miles SE on its NE side. A square coral mound, on the NE edge of the reef, from a distance resembles a small dhow. Thence:

2 ESE of Qiţ ‘at Jarādah (26°11′N 50°54′E) a drying reef; a light-beacon stands on its S end; off its SE side there is a narrow strip of sand whose shape and elevation is dependant on the wind. A Coastguard check point barge (8.43) is moored off the SE side of the reef Thence:

WNW of a dangerous rock (26°04′·9N 50°58′·6E) which lies about 4 miles WNW of Al Arish, thence:

3 ESE of Ra’s Ghumais (26°02′·6N 50°53′·6E), marked by a beacon (black and white), which forms the N drying extremity of Qit’at ash Shajarah; at low water the sea breaks over the reef, but at high water its position is indicated by the oily appearance of the surface and a slight discolouration. Thence:

WNW of Ra’s ‘Ushayrij (25°59′N 50°59′E) (8.7); a dangerous rock (existence doubtful) lies 1¾ miles NW of the point and a similar rock (existence doubtful), with a least depth of 1·9 m, lies 2 miles NNW. Thence:

4 ESE of Ghumais (26°00′N 50°53′E) the S extremity of Qit’at ash Shajarah, marked by a cairn.

(Directions continue at 8.20)

Anchorages

8.13

1 Anchorage may be obtained by vessels up to 3 m draught about 5 cables NW of Ra’s ‘Ushayrij (25°59′N 50°59′E) in a depth of 5 m; care must be taken to avoid the dangerous rocks NW and NNW of the point. Vessels with a draught of up to 4·5 m may obtain anchorage in a depth of 6 m, about 7 miles NNW of the point; local knowledge is necessary. Small local vessels obtain shelter from the *shamāl* off the SE side of Fasht ad Dībal (26°16′N 50°57′E).

Jazīrat Ḩawār

Description

8.14

1 **Description.** Jazīrat Ḩawār (25°40′N 50°45′E) is the largest of a group of islands standing on a reef which extends NW from a peninsula of stony hills forming the W side of the extensive shallow inlet of Dawḩat al Ḩuşayn; a conspicuous fort stands near its the N extremity. Rabad al Gharbiyah and Rabad ash Sharqiyah are two islets about 2 miles NNW of the N extremity of the island; a beacon (2 m high) stands on the N part of Rabad al Gharbiyah.

2 **Side channel.** A channel, marked by beacons (red and white), leads S, between Rabad ash Sharqiyah (25°45′·2N 50°47′·1E) and the small unnamed islet (7 m high) 2 miles ESE, to a jetty on the E side of the N end of Jazīrat Ḩawār.

DAWḨAT SALWÁ AND NORTH-EAST APPROACH

General information

Charts 2886, 3790

Route

8.15

1 From a position about 1½ miles ESE of the S extremity of Qit’at ash Shajarah (26°01′N 50°53′E) the approach to Dawḩat Salwá initially continues SSW, then WNW, to about 4 miles off the E Bahrain shore; it then leads, generally SSE, to the deeper water E of Al Hūl (25°44′·4N 50°33′·7E).

Dawḩat Salwá is entered between Jazīrat Ḩawār (25°40′N 50°45′E) and Ra’s Şayyāḩ, 26 miles W, the S extremity of a low sandy peninsula. The inlet is extensive, but is only frequented by local craft; there are no ports of any significance within the bay.

Topography

8.16

1 From Ra’s Dukhān (25°32′N 50°47′E), the W entrance point to Dawḩat az Zikrīt, the E side of Dawḩat Salwá is formed by Al Qaţar. It is mostly sandy rising to sandhills between 45 and 90 m high which, in the N half, are close to the coast, but in S are farther inland. The W shore of Dawḩat Salwá is indented by a succession of bays separated by headlands consisting of sand dunes. Al’ Uqayr (25°39′N 50°13′E), on the W side of an inlet, is entered from the W side of Dawḩat Salwá between Ra’s Şayyāḩ and Ra’s aş Şufayrā.

Tidal streams

8.17

1 See 8.10.

Depths

8.18

1 There is a least depth on the track of 2·8 m about 7 cables NNE of the light-beacon (25°58′·3N 50°42′·5E). No great depths have been found in Dawḩat Salwá, but off the E side of the entrance, N of Ra’s Şayyāḩ, depths decrease suddenly.

Principal marks

8.19

1 **Landmarks:**

An prominent earth station radio tower (97 m high) (26°04′N 50°37′E) stands W of Ra’s Abū Jarjūr; further radio masts (124 m high) stand about 2¼ miles WSW, close W of Ra’s Ḩayyan.

A conspicuous water tank (26°02′N 50°33′E) stands on the E summit of Jabal ad Dukhān (8.24); a tropospheric station (173 m) high stands close S.

2 Prominent tanks (25°59′N 50°37′E) stand in the vicinity of Ad Dūr.

A prominent monument (44 m high) (25°55′N 50°33′E) stands on the S part of Bahrain; a radio mast (105 m high) stands about 5½ miles SSE, NNE of Ra’s al Barr the S extremity of the island.

Directions

(continued from 8.12)

East side of Bahrain to Dawḩat Salwá

8.20

1 From a position ESE of the S extremity of Qit’at ash Shajarah (26°01′N 50°53′E) the approach to Dawḩat Salwá continues SSW, then WNW, passing:

ESE then SSW of a rock awash (25°58′·3N 50°51′·8E) lying SW of the S end of Qit’at ash Shajarah, thence:

NNE of Qita’a el Erge (25°53′·3N 50°49′·9E), a group of small drying reefs; a beacon (pole) stands on the SW reef and a light-beacon stands 2 miles farther SW. Thence:

2 SSW of a light-beacon (26°01′·3N 50°46′·5E) standing in an area of detached drying reefs off the SW side of Fasht al Adhm (8.25), thence:

SSW of Umm Jalid (26°01′·5N 50°43′·3E), a small islet standing on the edge of a line of reefs extending S from Fasht al Adhm; a stranded wreck lies off its SW corner. Thence:

NNE and WNW of the light-beacon (25°58′·2N 50°42′·5E) standing about 5 miles ESE of Jaww.

3 The track, marked by beacons, continues S, passing; WNW of of Tighaylib (25°54′N 50°42′E), ESE of Jabbārī Rock (25°53′N 50°39′E); it continues SSE between the dangerous reef, on which stand the islets of Qaşşār Nūn (25°47′·5N 50°36′·2E) and Ḩālat Nūn, 8 cables SSW, and the similar dangerous reef 2½ miles W of the beacon (black) on the S end of Jazīrat Mashtan (25°48′·5N 50°40′·9E).

When clear of Hālat Nūn, and the shoal close S with a least depth of 1·8 m, the track leads SSE to pass E of Al Hūl (25°44′·4N 50°33′·7E) (8.24) and clear of the detached dangerous reef (25°45′·5N 50°38′·7E) through into deeper water.

4 **Useful marks:**

A light-beacon (red and white) (25°58′·5N 50°37′·7E) standing close E of Ad Dūr at the outer end of a submarine pipeline.

A beacon (black and white) (25°43′·5N 50°40′·7E) standing on the dangerous reef extending SSW from Al Mu’tarid.

Side channels

8.21

1 A narrow shallow channel lies between Jazīrat az Zakhnūnīyah (25°33′N 50°20′E), a bare sandy island on which there is a village and a fort, and a rocky point with a sandy hill projecting from the mainland shore close W. A similar channel, with a least depth of 1·4 m, lies between the S extremity of the island and Ra’s Mulawwaḩ the NW extremity of a large promontory SE.

Anchorage

8.22

1 Anchorage may be obtained about 2¼ miles off Az Zallāq (26°03′N 50°29′E), a small village on the W coast of Bahrain, in a depth of about 9 m with the conspicuous peak of Umm al Na‘san (8.27) bearing 335°; landing in the vicinity of the village is good, but N and S it is bad. The anchorage should be approached with the village bearing about 081°; depths in the approach decrease suddenly to 5 m; note the obstruction about 1 mile W of the village.

BAHRAIN

GENERAL INFORMATION

Charts 2886, 3790

Area covered

8.23

1 This section describes the island of Bahrain (26°04′N 50°33′E) and its off-lying islands and islets which form the Kingdom of Bahrain.

It is arranged as follows:

North-east approach to Bahrain (8.28)
Mīnā’ Salmān and the Port of Sitrah (8.50).

Description

8.24

1 Bahrain is an island, about 27 miles in length from N to S and 8 miles wide, lying in the entrance to Dawḩat Salwá (8.15). It has low coasts and is mainly uncultivated except for a fertile belt of land along its N end. A rocky tableland,

30 to 46 m high, rising on all sides in small cliffs, occupies almost the full width of the island and extends S for several miles from about 4 miles S of the N coast. Jabal ad Dukhān (26°02′N 50°33′E) is a small compact group of dark hills rising to 134 m, about 12 miles from the island's N end, midway between its E and W coasts; in clear weather it is the first part of the island to be sighted, but landmarks on the island are often difficult to see due to the dust and haze which cuts visibility over the entire area.

2 The E side of the S end of Bahrain, from Haad al Jamal (25°51′N 50°36′E) to Ra's al Barr, 4½ miles SW, a spit extending SSE, is featureless and steep-to; a drying reef extends S from the spit, on the outer end stands Al Hūl (25°44′·4N 50°33′·7E), a small, 2·7 m high, islet.

On the W coast date palms, which are continuous along the N shore, grow in clumps; from about 2 miles S of Az Zallāq (26°03′N 50°29′E) all cultivation ceases; the S end of the island becomes desert with salt flats and the occasional patch of scrub. Qaşşār Rock (25°48′N 50°31′E), a 6 m high rock, lies off the S end of the W side of the island, about 3 miles WSW of Ra's al Barr.

3 The island of Al Muḩarraq (26°16′N 50°38′E) lies close off the NE extremity of Bahrain to which it is connected by causeways and bridges. Extensive reefs fringe the island on all sides which in the S have been reclaimed and are now occupied by the Arab Shipbuilding and Repair Yard (ASRY) and the Gulf Industrial Investment Company (GIIC) berths.

The island of Sitrah (26°10′N 50°37′E) lies close off the NE side of Bahrain to which it is connected by a causeway and a short neck of reclaimed land; the Port of Sitrah (8.86) lies off its E side.

Off-lying dangers

8.25

1 **East of Bahrain.** Fasht al Adhm (Fasht al ‘Az̧m), an area of drying reefs and sandbanks, extends about 16 miles SE from the SE corner of Sitrah (26°10′N 50°37′E) to Qit'at ash Shajarah (8.20) and connects with the S end of the bank on which stand Fasht ad Dībal (26°16′N 50°57′E) and Qiţ ‘at Jarādah (8.12), 3 miles SW. A beacon stands on the E extremity of Fasht al Adhm where the reef connects with the bank; a light-beacon (black, yellow band) (26°05′·6N 50°46′·3E) stands near the middle of the reef; a stranded wreck (26°06′·6N 50°46′·1E) lies near the middle of its N side. The whole area is encumbered by shoals, some not fully examined; see chart source data diagram.

2 **North-west of Bahrain.** Extensive reefs and shallow banks fringe the coast rendering approach impossible. Al Sahaylah (26°16′N 50°26′E) is a detached drying reef NNW of Al Budayyi‘, a town on the NW extremity of Bahrain. Several shoals lie in the vicinity of the reef and depths are very irregular; beacons mark some of the channels used by local craft in the waters off this part of Bahrain, but the numerous shoals, drying and dangerous rocks, and coral heads make local knowledge essential for safe passage.

Submarine pipeline

8.26

1 Submarine pipelines extend from Saudi Arabia to land on Bahrain about 2 miles S of Al Budayyi‘; see 1.17.

Off-lying islets

8.27

1 Al Muhammadiyah (Umm al Sabban) (26°12′N 50°26′E) is a small island SW of Al Budayyi‘ (8.25) covered in scrub, but with some palms. Jiddah, about 1¾ miles W of Al Muhammadiyah, has a 16 m high cliff at its W end, but its E end is low and sandy, the island is connected to the N end of Umm al Na‘san (26°09′N 50°24′E) which is also low and sandy; Jisr al Malik Fahd (King Fahd Causeway) (8.207) between Bahrain and the E coast of Saudi Arabia, crosses the N end of the island.

APPROACHES TO BAHRAIN

General information

Chart 2886

Route

8.28

1 From a position N of SPD–6 production platform (26°51′N 52°08′E), standing in the N part of the South Pars Gasfield, the approach to Bahrain Light-buoy (26°33′·1N 51°03′·5E) leads WSW, passing NW of Al Shaheen Oilfield, the North Field (Alpha and Charlie) Gasfields and Al Rayyan Oilfield. If approaching from E from the vicinity of Stiffe Bank (26°26′N 53°07′E) the route passes clear of Shah Allum Shoal (26°25′N 52°30′E) and S of Al Shaheen Oilfield, the North Field (Bravo) Gasfield and Al Rayyan Oilfield. From Bahrain Light-buoy a recommended track for deep draught vessels leads mainly SW to Sitrah Light-buoy (26°10′·2N 50°42′·9E) (8.76); the route for other vessels is established generally S and E of this track.

Topography

8.29

1 See 8.24.

Pilotage

8.30

1 See 8.67.

Vessel Traffic Service

8.31

1 See 8.63.

Restricted area

8.32

1 Anchoring and trawling is prohibited within 200 m of the Bahrain spur of the FOG (Fibre Optic Gulf) cable laid N from Mina' al Manama to the vicinity of Bahrain Inner light-buoy (26°20′·7N 50°33′·2E) thence to the main run of the cable through Persian Gulf; see 1.35.

Rescue

8.33

1 There is a Coastguard base (8.85) within Khawr al Qulay'ah.

Tidal streams

8.34

1 Off Bahrain and amongst the outlying reefs the tidal streams are much affected by the wind, but to an extent they follow the general trend of the reefs attaining, at springs, rates of between 1 kn and 2 kn, exceptionally 3 kn; E of Al Muḩarraq (26°16′N 50°38′E) streams set N and S.

Principal marks

8.35

1 **Landmarks:**

- A conspicuous water tank (26°02′N 50°33′E) (8.19) stands on Jabal ad Dukhān (8.24).

A conspicuous water tower (24 m high) (26°17′N 50°38′E) stands close S of Ra’s Rayya on the N end of Al Muḩarraq (8.24); a number of radio masts stand S and SE on the NE side of Bahrain International Airport runway.

2 A group of silos (45 m high) (26°13′N 50°39′E) stand near the power station (three chimneys) on Al Muḩarraq, N of ASRY (8.82).

A chimney (53 m high) (26°12′N 50°41′E) stands within the Gulf Industrial Investment Company (GIIC) facility situated on the SE corner of Al Muḩarraq.

Other aids to navigation

8.36

1 **Racons:**

Bahrain Light-buoy (26°33′·1N 51°03′·5E).

Sitrah Light-buoy (26°10′·2N 50°42′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 2.25)

Outer approaches

8.37

1 **From NE.** From a position N of SPD–6 production platform (26°51′N 52°08′E) the route leads WSW for about 65 miles to Bahrain Light-buoy (safe water) (26°33′·1N 51°03′·5E), passing:

Clear of the platforms in the N part of South Pars Gasfield (26°44′N 52°05′E); note additional platforms have been established in the gasfield and the presence of several unmarked pipes; see 1.15 and 1.17. Thence:

2 NNW of Al Rayyan Oilfield (26°39′N 51°34′E) (7.463), thence:

Clear of, depending on draught, several shoals on the coastal bank: their positions are shown on the chart, thence:

NNW of Five Fathom Patch (26°30′·8N 51°17′·9E) with a least depth of 9·4 m; a light-buoy (isolated danger) is moored on its E side. Thence:

To the vicinity of Bahrain Light-buoy (safe water) (26°33′·1N 51°03′·5E); note the dangerous wreck 3 miles SSE.

3 **From east.** From the vicinity of Stiffe Bank Light-float (26°26′N 53°07′E) (2.25) the route leads about 113 miles W, passing:

N of Balal Oilfield (26°19′N 52°33′E), thence:

Clear of Shah Allum Shoal (26°25′N 52°30′E) (7.461), thence:

S of North Field (Bravo) Gasfield (26°29′N 52°01′E), the S field of the Al Shaheen Oilfield/North Field Gasfield complex (7.462), thence:

4 S of Al Rayyan Oilfield (26°39′N 51°34′E) (7.463), thence:

N of a light-buoy (isolated danger) (26°30′·7N 51°18′·6E), marking an isolated shoal with a least depth of 9·1 m, thence:

To the vicinity of Bahrain Light-buoy (safe water) (26°33′·1N 51°03′·5E); note the dangerous wreck 3 miles SSE.

*(Directions continue for other vessels at 8.40
and for the deep draught route at 8.38)*

Charts 3790, 3738

Deep draught vessels

(continued from 8.37)

8.38

1 The charted recommended track is primarily intended for use as a departure channel for loaded tankers. Vessels with a draught of up to 12·2 m may use the fairway at any time, but vessels up to 13·4 m will be restricted by the tide. It should not be used by vessels with a draught of less than 9·1 m. From the vicinity of Bahrain Light-buoy (26°33′·1N 51°03′·5E) the recommended track, marked by light-buoys (lateral), leads initially SW, then S, for about 35 miles, passing:

2 NW of a dangerous wreck (26°30′·3N 51°05′·1E), thence:

SE of No 3 Light-buoy (S cardinal) (26°28′·3N 50°57′·4E) moored S of dangerous obstructions, thence:

NW of Caisson Wreck Light-buoy (S cardinal) (26°24′·4N 50°52′·5E); note the obstruction, 1½ miles NNW, with a least depth over it of 12·8 m lying close N of No 7 Light-buoy. Thence:

3 NW then W of Bahrain Approach Light-buoy (W cardinal) (26°21′·8N 50°46′·7E), thence:

E of Bahrain Outer Light-buoy (safe water) (26°21′·3N 50°42′·5E); and W of Sitrah Inward Light-buoy (W cardinal) (26°21′·2N 50°49′·7E) moored about 1 mile W of a shoal patch with a least depth of 9·8 m, thence:

W of Vidal Light-buoy (port hand) (26°14′·2N 50°47′·1E); see 8.71, thence:

4 E then S of No 27 Light-buoy (S cardinal) (26°10′·6N 50°45′·6E), thence:

N of No 18 Light-buoy (port hand) (26°10′·4N 50°44′·0E), thence:

N of Seistan Wreck Light-buoy (N cardinal) (26°09′·5N 50°43′·2E) moored at the N end of a shoal area, with a least depth of 4·2 m; an area of obstructions, with a least depth over them of 9·3 m, lies close NE. Thence:

To the pilot boarding position E of Sitrah Light-buoy (S cardinal) (26°10′·2N 50°42′·9E) (8.76).

8.39

1 **Useful marks:**

Fasht ad Dībal N Light-beacon (26°17′·4N 50°57′·5E) (8.12).

A 41 m high water tower (26°15′N 50°39′E) shaped like a golf ball on a tee stands on N of Al Hidd (8.70).

A 74 m high chimney (26°07′N 50°36′E) standing within the refinery W of Sitrah Marina (8.90) is conspicuous from seaward.

(Directions continue at 8.76)

Other vessels

(continued from 8.37)

8.40

1 The route for vessels not authorised to use the recommended route (8.38) leads from the vicinity of Bahrain Light-buoy (safe water) (26°33′·1N 51°03′·5E) for about 30 miles keeping SE and E of the deep draught recommended track, passing:

NW of a dangerous wreck (26°30′·3N 51°05′·1E), thence:

SE of No 1 Light-buoy (starboard hand) (26°28′·8N 50°58′·5E), thence:

2 NW of a wreck within a danger circle (position approximate) (reported 1977) (26°24′·8N 50°56′·8E) with a least depth of 5·5 m, thence:

SE of Caisson Wreck Light-buoy (S cardinal) (26°24′·4N 50°52′·5E), thence:

N then W of Sitrah Inward Light-buoy (W cardinal) (26°21′·2N 50°49′·6E) moored about 1 mile W of a shoal patch with a least depth of 9·4 m, thence:

3 W of Vidal Light-buoy (port hand) (26°14′·2N 50°47′·1E) moored about 2 cables W of a shoal patch with a least depth of 8·2 m; a wreck, with a least depth of 10·2 m, lies 9 cables ESE; see 8.71. Thence:

E then S of No 27 Light-buoy (S cardinal) (26°10′·6N 50°45′·6E), thence:

N of No 18 Light-buoy (port hand) (26°10′·4N 50°44′·0E), thence:

4 N of Seistan Wreck Light-buoy (N cardinal) (26°09′·5N 50°43′·2E) (8.38), thence:

To the pilot boarding position E of Sitrah Light-buoy (S cardinal) (26°10′·2N 50°42′·9E) (8.76).

Useful marks:

See 8.39.

(Directions continue at 8.76)

Mina’ al Manama

Charts 3737, 3735

General information

8.41

1 **Position and function.** Mina’ al Manama (26°14′N 50°34′E), situated on the NE corner of Bahrain, was formerly the main port of Bahrain, but is now almost exclusively used by local craft. The town of Al Manama is the capital of Bahrain and an important commercial centre.

Port limits. Mina’ al Manama lies within the limits of the Port of Bahrain; see 8.52.

2 **Approach and entry.** From the vicinity of Bahrain Inner Light-buoy (26°20′·7N 50°33′·3E) the port is approached between Jadoom (8.45) and the extensive reef extending NW from Al Muḩarraq; the port is entered passing W of Ra’s Surawen (26°15′N 50°34′E).

Caution. Light-buoys in the approaches are reported to be unreliable; a vessels position should be carefully ascertained and care taken to avoid the several shoal patches in the outer approaches.

Port Authority. See 8.55.

Limiting conditions

8.42

1 **Controlling depth.** Depths of less than 2 m lie in the approaches to Mina’ al Manama and in the approach to the dredged channel which leads to the N end of Khawr al Qulay’ah (8.70); discoloured water often extends W of Al Muḩarraq across the harbour.

Tidal levels. Mean spring range about 1·6 m; mean neap range about 0·8 m. See *Admiralty Tide Tables Vol 3.*

Arrival information

8.43

1 **Port operations.** All vessels under 33 m water-line length approaching Bahrain, and passing in the vicinity of a check point, are to report before proceeding. Coastguard check point barges are situated at 26°10′·5N 50°54′·5E off Qiţ ‘at Jarādah and at 26°27′·4N 50°34′·4E off the E side of Fasht al Jārim.

2 **Outer anchorage.** Anchorage may be obtained about 4 cables ESE of Bahrain West Spit Light-buoy (26°17′·1N 50°32′·4E) in depths from 7 to 10 m. Fasht al Jārim (26°28′N 50°30′E) affords shelter from the *shamāl*, but it does not prevent a considerable sea from getting up in the anchorage when the wind is strong, the closer inshore a vessel can anchor the lesser will be the effect of the sea; communication with the shore is seldom interrupted and vessels ride easily at anchor. A wreck (position approximate), with a least depth of 9·1 m, lies close N of the anchorage position.

3 **Prohibited anchorage.** Anchorage is prohibited within 200 m of the submarine cables laid from the shore W of the harbour; see 8.32.

Pilotage is not available.

Harbour

8.44

1 **General layout.** Customs Pier is an L-shaped pier on the NW side of the town forming the NE side of a basin which lies between an offshore island and the shore; in its SW part the island is connected by causeway to the mainland shore. The E part of the basin is entered between the head of Customs Pier, from which a light is exhibited, and a light-beacon (red with white band on concrete base), 1 cable WNW. Mina’ al Manama inner harbour is a bight in the reefs which affords better shelter than the outer harbour. The reefs bordering the harbour are all flat and in a good light show up well; fish traps may be encountered on the bordering reefs, but they usually lie some distance inside its edge. Reclaimed land fronts the former waterfront of the harbour from W of Customs Pier to Shaikh Isa Causeway; New Pier is situated close NE of Customs Pier.

2 **Development.** Reclamation and construction work is being undertaken on the extensive drying reefs fringing the NW coast of Al Muḩarraq.

Tidal streams. The in-going stream sets SSW along the the E side of Fasht al Jārim (8.49) until abreast Ra’s al ‘Ayn (26°24′·7N 50°32′·5E) where it is joined by the stream setting W along the N edge of the reefs, N of Qassar Khusayfah. In the entrance to the inner harbour the out-going stream sets NE with some strength and caution is required.

3 **Landmarks:**

Government House (26°14′·2N 50°34′·3E) stands near the root of Customs Pier and is conspicuous from seaward; a conspicuous minaret stands about 4 cables E. The whole area is under development and numerous other tall buildings are visible from seaward.

Directions for entering harbour

(continued from 8.38 or 8.40)

8.45

1 From the vicinity of Sitrah Inward Light-buoy (W cardinal) (26°21′·3N 50°49′·6E) the track initially leads W, passing:

S of Bahrain Approach Light-buoy (W cardinal) (26°21′·8N 50°46′·7E), thence:

S of Bahrain Outer Light-buoy (safe water) (26°21′·3N 50°42′·5E); if the light-buoy has not been sighted due to poor visibility it is inadvisable to cross the 10 m depth contour until the vessels position is fixed. Artificial reefs lie off the N side of Al Muḩarraq (8.24), see 8.4. Thence:

2 S of an isolated rocky shoal (26°23′·2N 50°35′·3E), with a least depth of 0·9 m, lying near the S edge of the extensive shallow flat extending E of Fasht al Jārim (8.49); a Coastguard check point (8.43) lies about 4¼ miles N. Thence:

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N and W of Bahrain Inner Light-buoy (port hand) (26°20′·7N 50°33′·2E), and:

W of Jadoom (26°20′N 50°31′E), the S part of Fasht al Jārim (8.49); a drying coral patch lies near the the SSE extremity of Jadoom. Thence:

3 E of Bahrain West Spit Light-buoy (starboard hand) (26°17′·1N 50°32′·4E) moored E of West Spit which forms the E part of an extensive shoal area extending E from Marwadah (8.212).

8.46

1 **Inner harbour approaches.** The inner harbour and the N part of Khawr al Qulay'ah may be approached from the vicinity of Bahrain West Spit Light-buoy (26°17′·1N 50°32′·4E), passing WSW of Ra's Surawen Light-beacon (metal structure on white base) (26°15′·3N 50°33′·5E) standing on the W extremity of the extensive reef NW of the port. The track then leads SE to the outer end of the channel, with a least depth of 3·3 m (1992) and marked by light-beacons (lateral), passing NE of the harbour and the waterfront of Al Manama to Shaikh Isa Causeway and the N part of Khawr al Qulay'ah (8.70).

2 **Useful mark:**

Lights are exhibited from a building (200 m high) (26°14′·1N 50°32′·4E) in the Al Seef District.

Port services

8.47

1 See 8.91.

Minor channels

8.48

1 A small boat passage leads between the extensive reef NW of Mina' al Manama and the reef W of Jazīrat al Sayah (26°16′N 50°35′E) to the inner end of the dredged channel leading to Khawr al Qulay'ah.

A channel, dredged to 4·2 m (1987), is entered from the W side of the inner approaches to Mina' al Manama about 1¼ miles W of Ra's Surawen Light-beacon (26°15′·3N 50°33′·5E); the channel leads close off the drying reef N of Bahrain to its W entrance in the deeper water between Lighthouse Rock (26°14′·9N 50°30′·9E), which may be difficult to see being hidden by fishing stakes, and Liya Rock, 8 cables N, on which stands a cairn (square topmark).

2 **Useful mark:**

Bahrain Fort (ruins, 18 m high) (26°14′N 50°31′E), an old Portuguese fort situated in a gap in the date groves close to the beach; the fort shows up as a light-coloured mass of stones in the early morning sun, but is difficult to distinguish with the sun behind it.

Harbour

Charts 3790, 3737

Fasht al Jārim

8.49

1 **Description.** Fasht al Jārim (26°28′N 50°30′E) is an extensive reef between 7 and 18 miles N of Bahrain; its middle and S parts consist of rock and sand, but on its N end are masses of black coral. Artificial reefs have been constructed N of the reef; see 8.4. Three low lying islands, Jazīrat al Jadoom, Jazīrat Umm al Ma and Jazīrat al Jārim have been constructed from material dredged from a channel cut through the SW part of the reef. The shallow flat E of the reef is extensive; a dangerous rock (8.45), lies near the S edge of the flat.

2 The N extremity of the reef is marked by a light-beacon (26°32′·6N 50°32′·4E); Hayr al Aẓālah, a shoal spit, extends about 3 miles WNW from the N end of the reef. Lights are also exhibited from the E extremity of the reef in the vicinity of a tower (16 m high) and a cairn (2 m high). Qulay' Rock (26°25′·3N 50°29′·2E), a drying rock marked by a beacon, stands about 4 cables W of Jazīrat al Jārim. Ra's al 'Ayn (26°24′·7N 50°32′·5E) is a drying point on the SE part of the reef; a beacon stands in its central S part, about 2½ miles SW of the point.

3 **Harbour.** The NE end of the channel cut through the reef terminates at the reclaimed island of Jazīrat al Jārim (26°25′N 50°30′E) where there is a small support harbour for the oil industry; the approach channel, marked by beacons, is dredged to 3·6 m (1991), the harbour to 4·7 m.

MĪNĀ' SALMĀN AND THE PORT OF SITRAH

General information

Charts 3737, 3736

Position

8.50

1 Mīnā' Salmān (26°12′N 50°37′E) and the Port of Sitrah (26°10′N 50°40′E) together with the ship yard and the berths on the reclaimed land S of Al Muḩarraq (8.24) form the Port of Bahrain. Mīnā' Salmān lies within Khawr al Qulay'ah (8.70); the Port of Sitrah lies on the E side of Sitrah Island, S of the entrance to Khawr al Qulay'ah.

Topography

8.51

1 See 8.24.

Port limits

8.52

1 The port limits include Mīnā' Salmān, the Port of Sitrah, ASRY and Mina' al Manama (8.41), they extend seaward to include the anchorages and the inner part of the main channel.

Approach and entry

8.53

1 The Port of Bahrain is approached through either the deep draught route (8.38) or the other vessels route (8.40); the port is then entered from a position S of Sitrah Light-buoy (26°10′·2N 50°42′·9E).

Traffic

8.54

1 In 2004, the Port of Bahrain was used by 843 vessels with a total of 18 725 202 dwt.

Port Authority

8.55

1 Customs and Ports Affairs, Directorate General of Ports, PO Box 453, Al Manama, Bahrain.

Limiting conditions

Controlling depth

8.56

1 A least depth of 9·3 m lies in the inner dredged channel leading to Mīnā' Salmān, close WNW of No 9 Light-buoy (26°11′·8N 50°38′·2E). Charted depths within Khawr al Qulay'ah and its immediate approaches may be less than charted; mariners are advised to exercise caution when navigating outside the marked channels.

Vertical clearances

8.57

1 The bridged section of the Third Muḩarraq Causeway has a vertical clearance of 16 m; the Shaikh Hamad Causeway 4·3 m; and Shaikh Isa Causeway 4·4 m. See 8.83.

Deepest and longest berth

8.58

1 GIIC Jetty; see 8.81.

Tidal levels

8.59

1 Mean spring range about 1·8 m; mean neap range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled

8.60

1 The inner approach channel to Mīnā’ Salmān (8.79) can handle vessels of up to 300 m in length on a maximum draught of 10·5 m.

Local weather

8.61

1 From April to October the climate is very hot with a high relative humidity, but it is reported to be somewhat better than that experienced in other parts of the Arabian coast. In July and August the *shamāl* is often strong enough to make the weather relatively cool and pleasant; between November and March the weather is usually very pleasant.

Arrival information

Port operations

8.62

1 Vessels using the deep-water track should reduce speed, depending on draught, in the shallower parts of the channel between No 1 and No 5 Light-buoys, between No 9 and No 13 Light-buoys and close N of No 14 Light-buoy. Deep draught vessels leaving harbour and requiring the full advantage of the tide to clear the shoal patches should aim to pass Bahrain Approach Light-buoy (26°21′·8N 50°46′·7E) not later than 1½ hours before the predicted high water at Mīnā’ Salmān.

2 All vessels, with the exception of coastal vessels, should proceed to the waiting anchorages SE of No 27 Light-buoy (S cardinal) (26°10′·6N 50°45′·6E) and await instructions from Bahrain Port Control.

See 8.43.

Vessel Traffic Service

8.63

1 A mandatory Vessel Traffic Service is in operation for the control of shipping; positions of reporting points are shown on the chart. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.64

1 ETA at Sitrah Light-buoy (26°10′·2N 50°42′·9E) along with maximum draught should be sent at least 24 hours and 12 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.65

1 Anchorage may be obtained by vessels waiting for a berth or the tide, in depths between 17 and 18 m, in A1 to A4 and B1 to B7 anchorages, situated E and S of No 27 Light-buoy (26°10′·6N 50°45′·6E). These anchorages are under the direction of Bahrain Port Control and may be used by vessels of over 100 000 dwt; plenty of cable should be used. All vessels must maintain a continuous listening watch on VHF. A wreck, with a swept depth over it of 16·1 m, lies between A1 and A2 anchorages; two wrecks, one with a swept depth over it of 15·6 m and the other with a least depth of 14·8 m, lie close S of B1 anchorage.

2 **Explosive anchorage.** An explosives anchorage is situated S of No 18 Light-buoy (26°10′·4N 50°44′·0E) and W of the main anchorage area. A wreck, with a least depth of 10·2 m, lies close within the E limit of the anchorage; other wrecks, with least depths over them of 8·9 m, lie close W of the SW corner of the anchorage. Seistan Wreck Light-buoy (N cardinal) (26°09′·5N 50°43′·2E) marks an area of shoals, obstructions and wrecks W of the anchorage.

3 **Sitrah Anchorage** lies in the approaches to ASRY (8.82) in an area between the shipyard, Sitrah Light-buoy (26°10′·2N 50°42′·9E) and Mīnā’ Salmān Approach Light-buoy, 2 miles W. The anchorage is under the direction of Bahrain Port Control; any vessel using the anchorage is under 1 hours notice of movement.

Khawr al Qulay’ah. Good anchorage, sheltered from the *shamāl*, may be obtained within Khawr al Qulay’ah clear of the dredged channels and the shoal areas; see 8.56.

4 **Prohibited anchorages.** Anchorage is prohibited in the open roadstead S and W of Sitrah Light-buoy (26°10′·2N 50°42′·9E); within Khawr al Qulay’ah anchorage is prohibited in the restricted areas (8.69).

Submarine cables

8.66

1 See 8.69.

Pilotage

8.67

1 Pilotage is compulsory for all vessels over 250 grt and available day and night; pilot boards E of Sitrah Light-buoy (26°10′·2N 50°42′·9E). There are two pilotage authorities for Bahrain co-ordinated through Bahrain Port Control. Bahrain Pilots handle all vessels for Mina’ Salman (Khawr al Qulay’ah) and the GIIC, ALBA and BAPCO Terminals. ASRY pilots handle all vessels bound for the ship building and repair yard. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.68

1 Tugs are available.

Restricted areas

8.69

1 A restricted area, in which anchorage is prohibited, crosses the S part of Khawr al Qulay’ah following the line of a power cable laid from Sitrah Power Station to ASRY (8.82). The N limit of the area is marked at intervals by buoys (red can); where the cable crosses the entrance its position is indicated by beacons (triangular topmarks) standing on the W side of ASRY. A second area initially follows the line of a submarine power cable, marked by light-beacons (yellow square topmarks), laid across Khawr al Qulay’ah from S of Al Manama Marina (26°14′·2N 50°36′·0E) to the middle part of the Third Muḩarraq Causeway, from where the area continues SE to a position close off ASRY.

Harbour

General layout

8.70

1 Mīnā’ Salmān is approached through Khawr al Qulay’ah, an extensive inlet off the NE corner of Bahrain formed by the smaller islands of Sitrah and Al Muḩarraq (8.24) and their surrounding reefs. The port also includes the Arab Shipbuilding and Repair Yard Company (ASRY) and Gulf Industrial Investment Company (GIIC) quay and jetty, built on reclaimed land E of the entrance to Khawr al Qulay’ah and S from Al Ḩadd (Al Hidd), and the Port of Sitrah off the E side of the island of Sitrah.

Development

8.71

1 Work is in progress (2005) on the construction for the new port of Al Hidd is being undertaken on the coastal bank E of the GIIC Jetty (26°12′N 50°41′E) (8.81); the development involves a large outer breakwater extending to a position close N of Sitrah Light-buoy (26°10′·2N 50°42′·9E). Development work is also in progress (2005) NNE of Ra’s Qalali (26°16′N 50°39′E), in the vicinity of Qassar Jurdī. Mariners should navigate with caution in these areas and consult the port authorities for the latest information.

Local magnetic anomaly

8.72

1 A large local magnetic anomaly was reported (1963) in the vicinity of No 1 Berth at Deep Water Jetty (8.84).

Natural conditions

8.73

1 **Tidal streams** in the entrance to Khawr al Qulay’ah are strong and may be greater than expected due to the considerable development in the area; within the inlet streams attain a maximum rate of about ½ kn.

Climatic table. See 1.145 and 1.154.

Landmark

8.74

1 A flare stack, 56 m high, (26°08′·6N 50°38′·9E) stands on the SE corner of the petrochemical plant (8.89) WSW of the Port of Sitrah; other conspicuous tanks and chimneys also stand within the area.

Other aid to navigation

8.75

1 **Racon:**

Sitrah Light-buoy (26°10′·2N 50°42′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

Khawr al Qulay’ah

8.76

1 From the pilot boarding position, E of Sitrah Light-buoy (26°10′·2N 50°42′·9E), the recommended track leads S of the light-buoy and through to the approach to Khawr al Qulay’ah, passing (with reference to Diwan Light-beacon (26°10′·8N 50°39′·7E)):

S of Sitrah Light-buoy (S cardinal) (3 miles E); an obstruction, with a least depth over it of 11·7 m, lies about 2 cables S of the buoy. Thence:

N of South Shoals Light-beacon (lattice beacon) (2¼ miles SE); a wreck, with a least depth over it of 8·6 m, lies 1 cable N of the light-beacon. Thence:

2 S of Mīnā’ Salmān Approach Light-buoy (safe water) (1¼ miles ESE), thence:

NE of the Port of Sitrah North Range Beacon (lattice beacon; 7 m high) (7 cables SSE) standing on the W side of the channel.

Useful mark:

South Range Light-beacon (lattice beacon, 7 m high) (26°09′·3N 50°41′·0E) standing 4 cables E of the SE end of GPIC Berth (8.88), close NNW of a wreck with a least depth over it of 4·7 m.

8.77

1 **Khawr al Qulay’ah Leading Lights:**

Front light-beacon (aluminium triangle on metal tripod; 4 m high) (26°11′·0N 50°39′·4E) standing on the W side of the channel on the reef S of Qassar al Qulay’ah.

Rear light-beacon (similar structure with two triangles points together below an upper triangle; 8 m high) (370 m NW) standing on Qassar al Qulay’ah.

2 From the vicinity of North Range Light-beacon the alignment (323¾°) of these light-beacons leads NW to the outer end of Khawr al Qulay’ah entrance channel; the track then leads NNW, passing (with reference to Diwan Light-beacon (26°10′·8N 50°39′·7E)):

WSW of Salman Light-buoy (starboard hand) (3½ cables SSE), thence:

3 WSW of Diwan Light-beacon (green pile) standing on the SW corner of the reef W of ASRY (8.82); Qassar Diwan, a 0·2 m high rock, stands on the W side of the reef, 2 cables N of the beacon.

8.78

1 **Khawr al Qulay’ah Inner Leading Lights:**

Front light-beacon (aluminium triangle on metal tripod; 4 m high) (26°11′·8N 50°39′·5E) standing on a small reef WNW of ASRY (8.82).

Rear light-beacon (similar structure with aluminium topmark of two triangles points together; 8 m high) (4½ cables N) standing on a reef W of ASRY causeway.

2 From the vicinity of Diwan Light-beacon the alignment (356¾°) of these light-beacons leads N between the reefs on the W side of the channel bordering Qassar al Qulay’ah, and the reefs on the E side bordering ASRY, passing (with reference to Diwan Light-beacon (26°10′·8N 50°39′·7E)):

E of Triad Light-beacon (red pile) (4½ cables NNW), from where course may be altered, keeping in the centre of the dredged channel, towards NNW.

8.79

1 **Mīnā’ Salmān Approach Leading Lights:**

Front light-beacon (white triangle apex up on dolphin) (26°11′·3N 50°39′·8E) standing on the reef W of ASRY (8.82).

Rear light-beacon (white triangle apex down on dolphin) (1½ cables ESE) standing on the W side of ASRY.

Directional light:

A directional light-beacon (26°12′·1N 50°36′·6E) is exhibited from a flour mill silo.

2 From a position N of Triad Light-beacon (26°11′·2N 50°39′·4E) the alignment (106·9°), astern, of the Approach Leading Light-beacons, and the white sector (286·7°-287·5°) of the directional light, ahead, lead WNW through the main inner channel, marked by light-buoys

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(lateral), to the N part of the turning basin E of the outer end of Deep Water Jetty (8.84). Note the 9·7 m depth in the fairway about 3½ cables NNW of Triad Light-beacon.

3 **Useful marks:**

South Khor Light-buoy (isolated danger) (26°11′·9N 50°39′·1E) moored on the NE side of a detached shoal area with a least depth of 4·9 m.

Harbour Masters Office with a tower (26°12′·1N 50°36′·8E) standing close NW of the root of Deep Water Jetty.

Secondary approach channel

8.80

1 From a position N of No 2A Light-buoy (port hand) (26°11′·5N 50°38′·9E), the old approach channel forms a secondary channel, marked by light-buoys (lateral). Initially it leads WSW, passing SSE of No 10 Light-buoy (E cardinal), 2 cables WNW, approaching the turning basin off Deep Water Jetty from SE. The channel also provides an approach to the repair quays W of Deep Water Jetty, and the various other wharfs along the N and NW coast of Sitrah.

2 **Useful mark:**

A stranded wreck (26°11′·6N 50°37′·3E) lies about 2½ cables S of the outer end of Deep Water Jetty (8.84).

Berths

GIIC Jetty

8.81

1 Gulf Industrial Investment Company (GIIC) Jetty (26°12′N 50°41′E), about 300 m long, extends SSE from reclaimed land off the S end of Al Muḩarraq (8.24). On its E side the jetty can handle vessels up to 100 000 dwt with a maximum length of 290 m; on its W side vessels up to 60 000 dwt with a maximum length of 240 m; maximum permissible manoeuvring draught at the jetty is 12·8 m. The E side of the jetty is used for the import of iron ore and the W for the export of iron ore pellets. A light is exhibited from a dolphin close SSE of the outer end of the jetty; light buoys (starboard hand) mark the SW edge of the coastal bank and the dredged area in the approach to the E side of the jetty. Berthing and unberthing is undertaken day or night subject to prevailing weather and tidal conditions.

2 **GIIC leading lights:**

Front light-beacon (framework tower with white stripes; topmark black triangle) (26°11′·6N 50°41′·0E) standing on the middle part of the S end of the GIIC complex.

Rear light-beacon (similar structure; topmark two triangles points together below an upper white triangle) (190 m NNW).

The alignment (332·9°) of these light-beacons leads NNW from Sitrah Anchorage (8.65) to a position between the W side of the jetty and Dolphin Turning Light-buoy (port hand).

ASRY Repair Yard

8.82

1 Arab Shipbuilding and Repair Yard (ASRY) (26°11′N 50°40′E) stands on reclaimed land S of Al Muḩarraq (8.24) and W of GIIC Jetty. The yard has a dry dock of 500 000 tonnes capacity, two floating docks up to 120 000 tonnes capacity, six wet berths up to a maximum draught of 8·1 m and extensive workshop facilities. Lights are exhibited from dolphins SSE of the wet berthing piers which extend SSE from the main quay; lights are also exhibited from the floating docks outer dolphins.

Khawr al Qulay'ah

8.83

1 **Description.** Khawr al Qulay'ah forms the inner part of the port of Bahrain, the inlet extends about 6 miles NW from its S entrance to a small artificial basin formed between Shaikh Isa Causeway and Shaikh Hamad Causeway, both of which connect Al Manama to the N end of Al Muḩarraq. The Third Muḩarraq Causeway connects Al Juffair, close NE of Mīnā' Salmān, with the reclaimed land S of Al Muḩarraq near Al 'Azal (Umm al Shujayrah), a small basin W of a power station. A channel, marked by light-buoys, leads beneath the Third Muḩarraq Causeway. North Khor Light-buoy (26°13′·0N 50°38′·0E), moored SE of the channel, marks the NW extremity of the shoal area in the middle of the inlet.

2 A causeway also connects Mīnā' Salmān with the NW corner of Sitrah passing over the island of Al Nabih Salih which is covered in date palms; the island and surrounding reefs encumber the entrance to the two extensive shallow backwaters entered from the SW corner of Khawr al Qulay'ah.

8.84

1 **Mina' Salman** forms the main harbour area within Khawr al Qulay'ah and comprises sixteen numbered berths, along a 1200 m long main quay; a container terminal is situated at its NE end. Deep Water Jetty, 30 m wide, extends 800 m ESE from the SW end of the main quay, both are approached through a dredged area whose N and E limits are indicated by light-buoys (lateral); alongside depths are between about 6·6 and 9·6 m. A small harbour (26°12′·0N 50°36′·8E) lies within a basin close W of the root of Deep Water Jetty; the harbour is entered through a dredged area, with a least depth of 3·8 m lying close off the W side of the entrance; a light-buoy (port hand), moored close S of the entrance, indicates the limits of the dredged area.

2 The N and NW parts of Sitrah are formed by a large area of reclaimed land; a number of wharfs, with various alongside depths, lie along this part of the island which is approached from the inner end of Mīnā' Salmān secondary approach channel (8.80). Sitrah Power Station is built on the reclaimed land close S of the E end of the wharfs. Numerous mooring buoys are laid between the N end of Sitrah and Mīnā' Salmān.

3 Bahrain Ship Repair and Engineering Company (BASREC) wet berths are situated on the NW side of Khawr al Qulay'ah close W of the small harbour. The offshore slipways and floating dock are connected by a causeway to the repair quays and wharfs NW; the slipways can handle vessels up 1000 tonnes and up to 70 m in length; the floating dock has a capacity of 6000 tonnes.

8.85

1 **Coastguard Harbour.** A Coastguard harbour and base (26°14′·5N 50°36′·8E) is situated in the N part of Khawr al Qulay'ah and entered E of a drying reef, on which lie two stranded wrecks, between breakwaters from which lights are exhibited. A light-beacon marks the SE extremity of the drying reef over the centre of which is a disused submarine cable, marked by a beacon (white); the cable continues SW passing SE of Al Manama Marina (26°14′·2N 50°36′·0E) and its off-lying drying reef. Mina' al Muḩarraq is an area of quays E of the coastguard harbour which may be approached from SW, passing SE of the drying reef and through a channel, marked by beacons, light-beacons and

Port of Sitrah (8.86)

(Original dated 2001)

(Photograph – Lt Cdr Tulloch HMCS Charlottetown)

buoys; Ḩālat Abu Mahir, a conspicuous fort with three small towers, on a low spit close NE of the quays.

Port of Sitrah

8.86

1 **General information.** The port comprises of four separate wharfs or jetties S of the entrance to Khawr al Qulay'ah; berthing and unberthing is undertaken day or night subject to the prevailing weather conditions. Anchors must not be used except on the advice of the mooring master. An under-keel clearance of 0·7 m is required at all berths.

8.87

1 **Oil Terminals.** No 1 Island Wharf is a detached island structure with dolphins SSE and NNW, it comprises an inner and an outer berth, both with overall lengths of 281 m with an alongside depth at the outer berth of 14 m; the berths can handle vessels up to 274 m in length. Lights are exhibited from its outer dolphins; a submarine cable and pipeline area extends from the outer end of the BAPCO causeway to the NNW end of the island.

2 Bahrain Petroleum Company (BAPCO) No 2 Wharf lies W of No 1 Island Wharf and is connected to the head of the middle Sitrah Causeway by a pier; mooring dolphins, from which lights are exhibited are situated SSE and NNW. The wharf, 580 m long, has four alongside berths; Berth 1, with an alongside depth of 12·8 m, can handle vessels up to 250 m in length.

3 Coastal Tanker Wharf, Berth 7 has alongside depths of 5·5 m and is situated at the end of a pier extending NNE from the head of the middle Sitrah Causeway; the berth handles bunker fuel, asphalt and LPG. A square float, with a gas pipe in its centre, is moored about 140 m W of the outer end of the wharf. A lighter wharf is situated on the S side of the head of the causeway, S of the Coastal Tanker Wharf.

8.88

1 **Bulk Cargo Berths.** ALBA Jetty lies SE of BAPCO No 2 Wharf and is connected to Storage Island by a pier then by a causeway to the shore and the middle Sitrah Causeway. An aerial conveyor system connects Storage Island to the petrochemical plant 1¼ miles WSW; A light (26°09′·6N 50°40′·3E) is exhibited from a dolphin close NW of the berth.

2 GPIC Jetty lies SE of ALBA Jetty and is connected to Storage Island by a pier, its NE side is used for the discharge of alumina and can handle vessels up to 35 000 dwt with a maximum length of 202 m; its SW side, used for aluminium exports, can handle vessels up to 12 000 dwt with a maximum length of 152 m. Lights are exhibited from dolphins close NW and SE; further lights are exhibited from two beacons (black) situated about 2 cables SE. Vessels are usually berthed on an in-going stream during daylight, unberthing is undertaken day or night on an in-going stream.

8.89

1 **Petrochemical Plant Wharf.** A petrochemical plant with a flare stack and a number of conspicuous tanks, and chimneys (red lights, 56 m high) is situated on reclaimed land extending ENE from the S part of Sitrah (8.24). The wharf is approached through a dredged channel entered close WSW of GPIC Jetty.

Chart 3790

8.90

1 **Fishing Harbour.** A fishing harbour (26°07′N 50°38′E) lies between Sitrah Marina and the petrochemical plant; various lights are exhibited from its vicinity. Both the harbour and marina may be approached from NE through a channel, dredged to 3 m (1990) and marked by light-beacons, which leads across the NW end of Fasht al Adhm (26°05′N 50°45′E) (8.25); they may also be approached from S through a channel marked by light-buoys and light-beacons passing E of Ra's Ḩayyan (26°02′·3N 50°37′·9E); E of Jazīrat ash Shaykh an islet about 6 cables N on which is a small white mosque; W of Ḩayyan Light-beacon (red) (26°03′·2N 50°39′·0E); E of Ra's Abū Jarjūr (26°04′·2N 50°37′·4E); W of the W end of Fasht al Adhm and E of the outer end of a concrete jetty extending SE from the shore close SW of the marina. Less water than charted (1996) is reported to lie in the outer approach to this route.

Port services

Repairs

8.91

1 Dry dock 500 000 tonnes capacity and floating docks up to 120 000 tonnes at ASRY (8.82); slipways 1000 tonnes capacity and floating dock 6000 tonnes at BASREC (8.84).

Other facilities

8.92

1 Divers available; lighters; floating crane; hospital; deratting exemption certificates only; coastguard base; oily waste reception at BAPCO wharf.

Supplies

8.93

1 Fuel oil available at BAPCO wharf and by barge; fresh water available, stores available.

Communications

8.94

1 Bahrain International Airport is situated on the NE part of Al Muḩarraq.

Harbour regulations

8.95

1 The Bahrain national flag must be flown when within the territorial waters.

Rescue

8.96

1 See 8.85.

DAWḨAT SALWÁ TO RA’S AL JU‘AYMAH

GENERAL INFORMATION

Chart 2886

Area covered

8.97

1 This section describes the coast from Ra’s Şayyāḩ (25°37′N 50°16′E) to Ra’s al Ju‘aymah (26°49′N 50°00′E).

It is arranged as follows:

The approaches to Ra’s Tannūrah and Ra’s al Ju‘aymah Terminals, and the Port of Ad Dammām (8.98).
Ra’s Tannūrah Terminal (8.112).
Ra’s al Ju‘aymah Oil Terminal (8.144).
Port of Ad Dammām including Khawr al Bāb and Channels Southwards (8.173).

THE APPROACHES TO RA’S TANNŪRAH AND RA’S AL JU‘AYMAH TERMINALS, AND THE PORT OF AD DAMMĀM

General information

Charts 3788, 3777

Route

8.98

1 From a position E of Ras Tanura Light-buoy (27°06′·1N 50°57′·5E) the route leads W to Ra’s Tannūrah Approach Light-buoy moored 14 miles W at the outer end of the Ra’s Tannūrah TSS (8.102); it continues W to Ra’s Tannūrah Entry Light-buoy (27°06′·1N 50°57′·5E) then SW and S to the Ra’s Tannūrah Terminals and the N approach to Ad Dammām, passing SE of the approach channel to the Ra’s al Ju‘aymah Terminals. The ports of Ra’s Tannūrah and Ad Dammām may also be approached, by vessels of suitable draught, through East Channel (8.110) from a position clear of Hayr Abū ath Thāmah (26°53′N 50°58′E).

Depths

8.99

1 Lesser depths than the charted depth of 10·9 m have been reported over the detached shoal bank (26°56′·5N 50°43′·6E) about 4 miles SSE of Fasht an Najwah (8.107). An obstruction, with a least depth over it of 18·1 m, lies in mid-channel near the inner end of the inbound lane of the TSS, about 5 cables NE of No 9 Light-buoy (26°14′·9N 50°11′·8E).

Crossing traffic

8.100

1 All mariners should be aware that when using Main Channel (8.107), in the vicinity of 26°57′N 50°13′E at the outer end of the approach channel to Ra’s al Ju‘aymah (8.163), partially laden deep-draught tankers, proceeding from Ra’s Tannūrah to Ra’s al Ju‘aymah to complete loading, may be encountered crossing the traffic lane. All vessels should proceed with extreme caution when in this vicinity. Light-buoy A (safe water) (26°56′·4N 50°12′·6E) is moored in the separation zone, on the SW side of the crossing area; this buoy should always be passed on the port side.

Pilotage

8.101

1 See 8.129, 8.159 and 8.191.

Traffic regulations

8.102

1 **Traffic separation scheme.** A traffic separation scheme has been established for all vessels using Main Channel (8.107). The scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See *Annual Summary of Admiralty Notices to Mariners.*

8.103

1 **East Channel.** Dry cargo vessels with a draught not exceeding 10·4 m proceeding to or from Ad Dammām, and tankers of less than 244 m in length proceeding to or from Ra’s Tannūrah, should use East Channel (8.110) and not Main Channel. All vessels using East Channel should keep to the starboard side of the fairway and not overtake between RTE 4 Light-buoy (26°45′·6N 50°24′·7E) and RTE 8 Light-buoy moored at its inner end. Outward bound vessels should not leave the channel until clear of RTE 2 Light-buoy (26°47′·0N 50°34′·1E).

2 **Reporting.** A mandatory Vessel Traffic Service is in operation for the control of shipping; positions of reporting points are shown on the chart. See *Admiralty List of Radio Signals Volume 6 (3).*

Submarine pipeline

8.104

1 A submarine pipeline is laid SW from Abū Sa’afah Oilfield (26°58′N 50°32′E) to land close N of Ra’s Tannūrah Terminals.

Spoil ground

8.105

1 Spoil grounds lie on the E side of Ra’s Tannūrah Tanker Anchorage (26°39′N 50°14′E) (8.135) and S of Najwah (8.196).

Other aids to navigation

8.106

1 **Racons:**

Shutayā Light-buoy (26°42′·8N 50°50′·4E).
Ras Tanura Light-buoy (27°06′·1N 50°57′·5E).
Gharībah Light-beacon (26°59′·5N 50°13′·0E).
Juaymah Light-buoy (27°12′·6N 50°38′·9E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 2.25)

Main Channel

8.107

1 **Ras Tanura Light-buoy to Gharībah Light-beacon.** From a position N of SPD–6 production platform (lit) (26°51′N 52°08′E) in the N part of the South Pars Gasfield, in which additional platforms have been established, the track initially leads W for about 77 miles, passing clear of Ras Tanura Light-buoy (27°06′·1N 50°57′·5E) and through to the outer end of the main channel and into the first section of the Approaches to Ra's Tannūrah TSS (8.102), passing:

Clear of Ras Tanura Light-buoy (safe water) moored about 14 miles E of the outer end of the TSS, thence:

2 N of Approach Light-buoy (safe water) (27°06′·6N 50°42′·0E) moored at the outer end of the separation zone of the TSS, thence:

N of North Rennie Light-buoy (N cardinal) (27°05′·2N 50°41′·7E) moored at the N end of Najwat ar Ruqā'ī, a shoal area with a least depth of 3·3 m, forming the N part of Rennie Shoals (27°03′N 50°42′E). Fasht an Najwah is a shoal area, with a similar least depth over it, forming the S part of the shoals; a light-buoy (S cardinal) is moored off its S end. These shoals give no visible warning of their position. Thence:

3 S of Juaymah Light-buoy (27°12′·6N 50°38′·9E) (8.166) moored at the outer end of Ra's al Ju'aymah Departure Channel (8.166), thence:

N of Abū Sa'afah Oilfield (26°58′N 50°32′E) which contains numerous well heads and other structures all enclosed by a restricted area; see 8.3. Thence:

NW of Entry Light-buoy (safe water) (27°05′·7N 50°23′·2E) moored in the separation zone at the change of direction of the TSS, thence:

4 NW of FAS Light-buoy (N cardinal) (27°00′·1N 50°21′·8E) moored off the NW side of Fasht Abū Sa'afah, a steep-to, rocky shoal, with a least depth of 0·6 m; the sea usually breaks heavily over the shoal, but at high water, in calm conditions, it is not always visible. An obstruction, with a least depth of 1·2 m, lies close off its NW part; see 8.108. Thence:

NW of Hayr al Khushaynah (26°57′N 50°18′E), a shoal, with a least depth of 7·9 m; and NW of No 2 Light-buoy (port hand) moored on the SE boundary of the TSS. Thence:

5 SE of Gharībah Light-beacon (S cardinal) (26°59′·5N 50°13′·0E) standing on the S end of Fasht Gharībah, a shoal area with a least depth of 4·6 m; and SE of the outer end of Ra's al Ju'aymah Terminal Approach Channel (8.163).

8.108

1 **Useful mark:**

An unlit production platform (26°58′·2N 50°23′·1E) stands on Fasht Abū Sa'afah.

(Directions for Ra's al Ju'aymah are given at 8.163)

Charts 3776, 3777, 3812

8.109

1 **Gharībah Light-beacon to Ra's Tannūrah Terminals.** From a position SE of Ra's al Ju'aymah approach channel (8.163), the track continues S through the main channel, marked by numbered light-buoys (lateral) and by Light-buoys A to H (safe water and special) moored within the TSS separation zone, passing:

WNW of Hayr Abū Subayţī (26°54′N 50°14′E), a shoal, with a least depth of 4·3 m, lying on the E side of the main channel, thence:

2 ESE of Hayr aş Şafrā' (26°53′N 50°08′E), a shoal, with a least depth of 2·1 m, lying on the W side of the main channel; J6 Light-buoy (N cardinal) is moored close off the N extremity of the shoal. Thence:

ESE of HAB Light-buoy (26°51′·5N 50°09′·5E) moored S off Hayr Abā al Buhaym which forms the S part of Hayr aş Şafrā'; and E of No 3 Light-buoy moored 9 cables E. All inward bound vessels should navigate with caution in the vicinity of No 3 Light-buoy (26°51′·5N 50°10′·6E) where the edge of the extensive shoal bank E of Hayr Abā al Buhaym lies close W of the edge of the S bound lane of the TSS; also S of the light-buoy where the bank encroaches into the traffic lane with depths of less than 20 m. Thence:

3 W of Hayr al Wāsi'ah (26°48′N 50°12′E), a sandy shoal, with a least depth of 5·3 m, which lies on the N part of an extensive shoal ridge on the E side of the main channel, thence:

W of Light-buoy H (special) (26°41′·2N 50°12′·2E), moored at the inner end of the separation zone, thence:

To Ra's Tannūrah pilot boarding position (8.129), or continue SE to the Ad Dammām pilot boarding position (8.191) as required. A number of obstructions and areas of foul ground lie within the inner end of the main channel and in the area close S.

4 **Useful marks:**

RTN Light-beacon (red pile structure) (26°42′·0N 50°10′·1E) marking the edge of the coastal bank WNW of the inner end of the main channel; light-beacons also stand on the coastal bank 3½ miles and 6 miles NW.

A prominent flare (70 m high) (26°41′·6N 50°05′·4E) stands about 2½ miles SSE of Ra's ad Duwaysayn, close SW of a tank farm; numerous radio masts also stand in this area.

5 A crane (obstruction lights; 67 m high) (26°40′·4N 50°11′·0E) stands on the N platform of Sea Islands Terminal; radio masts stand on the other three platforms.

The oil storage tanks (26°39′N 50°09′E) on Ra's Tannūrah are conspicuous.

(Directions for entry to Ad Dammām are given at 8.196)

Charts 2883, 2886, 3788

East Channel

8.110

1 **Approach.** East Channel may be approached from a position N of SPD–6 production platform (light) (26°51′N 52°08′E), in the N part of the South Pars Gasfield, the track leads W for about 90 miles to the vicinity of RTE 2 Light-buoy (26°47′·0N 50°34′·1E), passing:

Clear of Hayr Abū ath Thāmah, a steep-to shoal with a least depth of 5·5 m; a light-buoy (isolated danger) (26°53′·0N 50°58′·3E) is moored on its SE side. Thence:

2 N of Hayr Shutayā (26°35′N 50°48′E), an extensive shoal area with a least depth of 7·9 m; Shutayā Light-buoy (safe water) is moored N of the main shoal area. A dangerous wreck (position approximate) (26°39′·1N 50°52′·1E) lies about 4 miles SSE of the light-buoy; artificial reefs have been established off the N side of the shoal, see 8.4. Thence:

S of a detached shoal area (26°56′·5N 50°43′·5E), with a least depth of 10·9 m, situated about 3½ miles SSE of Fasht an Najwah (8.107), thence:

3 N of Hayr Abū 'Amāmah (26°49′N 50°44′E, a shoal area with a least depth of 11·6 m, thence:

NNW of RTE 2 Light-buoy (N cardinal) (26°47′·0N 50°34′·1E) moored at the outer end of East Channel.

Charts 3788, 3777

8.111

1 **Entry.** The track through East Channel, marked by light-buoys (lateral and cardinal), continues for a farther 25 miles, initially W, passing:

S of Najwat al Washīr (26°52′·6N 50°30′·4E), a shoal, with a least depth of 11·9 m, lying on the SW corner of the bank extending ESE of Fasht ar Rujayjah; a wellhead lies on the shoal. Fasht ar Rujayjah, with a least depth of 5·8 m, lies within the limits of Abū Sa'afah Oilfield and is an extension ESE of Fasht Abū Sa'afah (8.107). Ad Dammām Holding Anchorage (8.189) lies S of Najwat al Washīr on the N side of the channel. Thence:

2 S of a detached shoal (26°48′·0N 50°25′·1E), with a least depth of 7 m; a wellhead lies about 1 mile E. Thence:

W of Hayr Shiqitah (26°41′N 50°29′E), a shoal area with a least depth of 5·2 m, thence:

SE of Hayr Khawrah (26°41′N 50°18′E), an extensive shoal area with a least depth of 3·5 m, thence:

Between the S extremity of Hayr Khawrah and the N part of Najwah to Ra's Tannūrah pilot boarding position (8.129) or the outer end of the buoyed channel and the deep draught pilot boarding position for Ad Dammām (8.196).

(Directions for entry to Ad Dammām are give at 8.196)

RA'S TANNŪRAH

General information

Charts 3777, 3812

Position

8.112

1 Ra's Tannūrah Terminals are situated off the E side of the sandy strip connecting Ra's Tannūrah (26°38′N 50°10′E) to the Saudi Arabian mainland.

Function

8.113

1 The terminals are a major Saudi Arabian oil export facility.

Topography

8.114

1 Ra's Tannūrah is the SE extremity of a low lying sand strip on which stand a few sandhills, in places it is less than 500 m wide; the SE extremity, about 1 m high, is formed by level sand over coral. The coast, from the NW end of the sand strip to Ra's al Ju'aymah, 10 miles NW, is low, sandy or stony desert, fronted by foul ground and reefs.

Port limits

8.115

1 The limits of the Port of Ra's Tannūrah include Sea Island Terminals, North and South Piers (8.136) and Ra's al Ju'aymah Oil and LPG Terminals (8.167); the limits are extensive and encompass most of Main Channel (8.107).

Traffic

8.116

1 In 2004, the port of Ra's Tannūrah was used by 1142 vessels with a total of 189 279 775 dwt.

Port Authority

8.117

1 Saudi Arabian Oil Company, Terminal Dept, Room M–2014, Ra's Tannūrah 31311, Saudi Arabia.

Limiting conditions

Controlling depth

8.118

1 The maximum entry draught allowed is 16·37 m which may be increased to 17·37 m depending on the tide; an under-keel clearance of at least 1·5 m must be maintained at all times.

Tidal levels

8.119

1 Mean spring range about 2·1 m; mean neap range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled

8.120

1 Sea Island Berths 19 and 20 can handle vessels up to 500 000 dwt.

Arrival information

Port operations

8.121

1 **Arrival and departure routes.** Main Channel (8.107) is the approach route for all deep draught tankers proceeding to Ra's Tannūrah and Ra's al Ju'aymah Oil Terminals; the route is also used by vessels with a draught of more than 10·4 m proceeding to, or departing from, Ad Dammām. Cargo vessels with a draught of less than 10·4 m, including tankers of less than 244 m in length, proceeding to or departing from Ra's Tannūrah and Ad Dammām should use East Channel (8.110). Loaded tankers departing Ra's al Ju'aymah Terminals use Ju'aymah Departure Channel (8.166).

8.122

1 **Inward bound** vessels must not exceed a speed of 5 kn between Light-buoy E (26°44′·5N 50°11′·5E) and the S limit of Ra's Tannūrah Tanker Anchorage (8.135); after passing Light-buoy G (26°42′·1N 50°12′·3E) all inward vessels must give way to departing vessels; on passing No 9 Light-buoy (26°42′·0N 50°11′·8E) inward vessels must not overtake and must maintain an interval of at least 1 mile between themselves and other vessels proceeding in the same direction. If approaching Ra's Tannūrah through East Channel vessels should contact port control before reaching East Channel Holding Anchorage (8.189); see 8.124.

8.123

1 **Outward bound** vessels must not exceed a speed of 5 kn between the S limit of the tanker anchorage (8.135) and Light-buoy G (26°42′·1N 50°12′·3E); until N of Light-buoy C (26°48′·5N 50°10′·3E). No overtaking is allowed and an interval of at least 1 mile must be maintained between vessels proceeding in the same direction.

Vessels of 150 000 dwt and over, with a draught of 18·28 m or more, may request assistance to align the vessel for the TSS departure channel; assisted pilotage is compulsory for vessels with a draught of 20·73 m or more.

In both cases the harbour pilot will remain until the vessel is safely aligned and may disembark by helicopter; see 8.118.

2 Vessels on passage between Ra's Tannūrah and Ra's al Ju'aymah should follow the outward bound traffic lane until abeam Light-buoy A (26°56′·4N 50°12′·6E) where course should be altered NW, with upmost caution, to pass NE of the light-buoy; see 8.100. If a pilot is not immediately available a vessel may be instructed to anchor; see 8.154. If bound from Ra's Tannūrah to the N Holding Anchorage (8.127) a vessel should proceed as if bound for sea, when at Approach Light-buoy (27°06′·6N 50°42′·0E) course may then be altered W and proceed as normal through the W bound TSS lane to the anchorage; no vessel should not cross the separation zone when proceeding to the N Holding Anchorage.

Vessel Traffic Service

8.124

1 A mandatory Vessel Traffic Service is in operation for the control of shipping; positions of reporting points are shown on the chart. See *Admiralty List of Radio Signals Volume 6 (3).*

Port radio

8.125

1 Ra's Tannūrah Port Control Radio controls the operations of both Ra's Tannūrah and Ra's al Ju'aymah Terminals; all vessels should maintain a constant VHF radio watch when within the vicinity of the approach channels and anchorages. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.126

1 Send ETA at Ra's Tannūrah Entry Light-buoy (27°05′·7N 50°23′·2E) 72, 48 and 24 hours prior to arrival; or immediately on departure from previous port if less than 72 hours. Vessels should contact Ra's Tannūrah pilots on VHF at about 100 miles distant for anchoring, boarding and berthing instructions. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorage

8.127

1 Anchorage may be obtained in the N Holding Anchorage (27°06′N 50°15′E) NNE of Fasht Gharībah (8.107), by tankers waiting for a berth at Ra's al Ju'aymah, or Ra's Tannūrah if the inner tanker anchorage is congested and have been instructed use the N Holding Anchorage. See 8.157. Vessels proceeding from the anchorage to Ra's al Ju'aymah must enter the inward traffic lane of Main Channel (8.107) and proceed to the pilot boarding position and not pass W of Fasht Gharībah (27°00′N 50°13′E).

Submarine pipelines

8.128

1 Submarine oil pipelines are laid, within a restricted area (8.132), between the NNE part of Ra's Tannūrah and the W side of Sea Islands Terminal; three light-buoys (special), laid N of North Pier, mark the line of the S pipeline. Submarine pipelines are also laid between the NW end of the low lying sand strip connecting Ra's Tannūrah with the mainland and the N end of Sea Islands Terminal; a light-beacon (pile structure) (26°40′·8N 50°09′·6E), and other light-beacons standing close offshore, indicate their position; see 1.17.

Pilots

8.129

1 Pilotage is compulsory for all vessels calling at Ra's Tannūrah; pilot boards SSW of Light-buoy H (26°41′·2N 50°12′·2E) or as advised by Ra's Tannūrah Port Control. Vessels in Ra's Tannūrah Tanker Anchorage (8.135) will normally be advised to move to a position 1½ miles SE of the S end of Sea Islands, dependant on weather and tidal conditions; if arriving via East Channel (8.110) pilot will board about 1 mile E of the S end of North Pier (8.135). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.130

1 Tugs are available.

Traffic separation scheme

8.131

1 See 8.102.

Restricted area

8.132

1 A restricted area, in which anchoring is prohibited, surrounds Sea Islands Terminal and North and South Piers. Abū Sa'afah Oilfield (26°58′N 50°32′E) lies within a restricted area; see 8.3.

Harbour

General layout

8.133

1 Ra's Tannūrah North and South Piers are connected by causeways to the refinery on Ra's Tannūrah; Sea Islands Terminal is connected by submarine pipelines (8.128) to the NW end of the narrow sand strip connecting Ra's Tannūrah with the mainland. West Pier lies on the W side of Ra's Tannūrah and is approached from a channel entered S of South Pier.

Tidal streams

8.134

1 Tidal streams appear to meet and divide near Ra's Tannūrah, SE of the point the in-going stream sets generally S and the out-going stream N; off Sea Islands Terminal the streams are similar at rates not normally exceeding 1 kn. North of Ra's Tannūrah the in-going stream generally sets NW and the out-going S; from the vicinity of Ra's Tannūrah the out-going stream appears to set NE passing between Fasht Abū Sa'afah (26°58′N 50°24′E) and Hayr Abū Daqīl (26°54′N 50°21′E), but the streams are not strong enough to interfere with safe navigation.

Berths

Anchorages

8.135

1 The roadstead in the vicinity of Ra's Tannūrah is exposed making boat and lighter work difficult; the bottom is varied with only fair holding, a good scope of cable should be veered during periods of unfavourable weather.

Ra's Tannūrah Tanker Anchorage (26°39′N 50°14′E) is a waiting anchorage E of Ra's Tannūrah terminals and W of Hayr Khawrah (8.111) with depths between 18 and 30 m. Vessels with a draught not exceeding 18·28 m may use this anchorage, but those with a greater draught should use the deep draught anchorage N of the Sea Islands Terminal.

2 **Freighter Anchorage** (26°37′N 50°12′E) situated about 2 miles SE of South Pier (8.138) with depths between 11 and 13 m, is for use by vessels other than tankers; an explosives anchorage adjoins its SW part.

Alongside berths

8.136

1 **Sea Islands Terminal** (26°40′N 50°11′E) consist of four loading platforms giving a total of eight numbered loading berths with breasting dolphins, all connected by catwalks; the whole Sea Islands complex is nearly 1 mile long; lights are exhibited from both its N and S ends. Berths 12 and 14, at the S end of the terminal, are no longer in commission; light-buoys (cardinal) are laid off the berths to indicate their current status. Berths 19 and 20 can handle vessels up to 500 000 dwt, but final loading draughts are governed by the need to maintain an under-keel clearance of 1·5 m in the departure channel; see Chart 3812 for table of alongside depths.

8.137

1 **North Pier** (26°39′N 50°10′E), connected to Ra’s Tannūrah by a causeway, is 806 m long and provides six numbered berths; see Chart 3812 for table of alongside depths. The outer berths 6, 8 and 10 are used for loading LPG; lights are exhibited from structures on the pier. A small boat pier extends S from the S side of the connecting causeway; mooring buoys are laid on the 10 m contour between North and South Piers.

2 **Leading lights:**

Front light-beacon (four pile beacon) (26°39′·4N 50°09′·7E) standing within the pipeline area NW of the pier.

Rear light-beacon (similar structure) (310 metres WNW).

From a position in the S part of the tanker anchorage (8.135) the alignment (284¾°) of these light-beacons leads WNW to a position close N of North Pier.

8.138

1 **South Pier** (26°38′N 50°10′E), connected to Ra’s Tannūrah by a causeway, is 366 m long and provides four numbered berths, see Chart 3812 for table of alongside depths; lights are exhibited from the pier. A small boat pier extends S from the S side of the connecting causeway.

Leading beacons:

Front light-beacon (black wooden framework tower, white stripe; 4 m high) (26°38′·4N 50°09′·7E) standing near the shore.

Rear mark (black circle on a black central stripe on an aluminium coloured tank) (213 metres W).

2 From a position in the S part of the tanker anchorage (8.135) the alignment (271¾°) of these beacons leads W to a position close N of South Pier.

8.139

1 **West Pier** (26°38′N 50°09′E), situated on the W side of Ra’s Tannūrah, is a part concrete mole projecting from the shore with alongside depths of 5·8 m used by small freighters. The pier is approached from Spit Light-buoy (special pillar) (26°37′·5N 50°10′·6E) passing S of Ra’s Tannūrah Light (8.196), the track then leads through a channel marked, at its outer end, by light-buoys; a stranded wreck, from which a light is exhibited, lies on the W side of the inner part of the fairway; mooring buoys are laid NW of the wreck. Lights are exhibited from structures N and W of the pier in the vicinity of the submarine pipelines laid towards Ad Dammām.

2 **Tidal streams** are strong off the S end of Ra’s Tannūrah causing rips and eddies; vessels rounding the point should maintain good headway.

Port services

Repairs

8.140

1 Repair services available.

Other facilities

8.141

1 Hospital; divers; floating crane; no oily waste reception facilities.

Supplies

8.142

1 Fuel oil available at all berths and in the anchorages by barge; fresh water only available in small quantities; limited provisions and stores available.

Communications

8.143

1 See 8.204.

RA’S AL JU‘AYMAH

General information

Charts 3777, 3776

Position

8.144

1 Ra’s al Ju‘aymah Oil Terminal SBMs are moored about 8 miles NNE of Ra’s al Ju‘aymah (26°49′N 50°00′E); the LPG loading platform is situated about 4 miles offshore, NE of Ra’s al Ju‘aymah.

Function

8.145

1 The terminals are a major Saudi Arabian oil and natural gas export facility.

Topography

8.146

1 See 8.114.

Port limits

8.147

1 See 8.115.

Approach

8.148

1 The Ra’s al Ju‘aymah terminals are approached from Main Channel (8.107) through a short spur which leads NW to the pilot boarding position; or SW to the LPG terminal pilot boarding position (8.159).

Traffic

8.149

1 In 2004, the port was used by 889 vessels with a total of 215 129 207 dwt.

Port Authority

8.150

1 Saudi Arabian Oil Company, Terminal Dept, Room M–2014, Ra’s Tannūrah 31311, Saudi Arabia.

Limiting conditions

Controlling depth

8.151

1 The maximum permitted arrival draught for Ra’s al Ju‘aymah Crude Oil Terminal loading berths is 21·34 m;

and the LPG Terminal 16·37 m. There is no sailing draught limitation from the Crude Oil Terminal, but the LPG Terminal is limited to about 23 m; an under-keel clearance of at least 1·5 m must be maintained.

Tidal levels

8.152

1 Mean spring range about 1·2 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Vol 3.*

Maximum size of vessel handled

8.153

1 Ra's al Ju'aymah Oil Terminal can handle vessels up to 750 000 dwt; the LPG Terminal vessels up to 200 000 cubic metres capacity. See 8.167.

Arrival information

Port operations

8.154

1 Vessels bound for Ra's al Ju'aymah terminals will normally be instructed to proceed to the N Holding Anchorage (8.127). If instructed to proceed direct to Ra's al Ju'aymah and, having arrived at the pilot boarding position and a berth is not immediately available, the arriving vessel may be instructed to anchor in that position to await the pilot, reporting her position to Ra's Tannūrah Port Control (8.125). See 8.121.

Vessel Traffic Service

8.155

1 A Vessel Traffic Service is in operation for the control of shipping; positions of reporting points are shown on the chart. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.156

1 See 8.126.

Outer anchorages

8.157

1 Main Channel N Holding Anchorage (8.127) and East Channel Holding Anchorage (8.189); see also 8.154. An LPG anchorage area, for use by LPG carriers when cooling tanks, is centred about 2½ miles NE of Ra's al Ju'aymah LPG Terminal; the holding is reported fair, but extra cable is recommended. Vessels waiting for a berth at the terminal will normally be directed to the N Holding Anchorage.

Submarine pipelines

8.158

1 Submarine oil pipelines are laid NNE from the coast, close NW of Ra's al Ju'aymah (26°49′N 50°00′E), to the control and oil handling platforms and thence to the loading berths; see restricted area 8.161 and 1.17.

Pilotage

8.159

1 Pilotage is compulsory for all vessels calling at Ra's al Ju'aymah Oil and LPG Terminals; pilot/mooring master for the oil terminal boards, usually by helicopter, W of Gharībah Light-beacon (26°59′·5N 50°13′·0E); vessels bound for the oil terminal should not proceed SW of this position without a pilot embarked. The pilot for the LPG Terminal boards about 3 miles ENE of the terminal in the LPG anchorage area; see 8.157. Pilots disembark between J 1 Light-beacon (27°02′·3N 50°07′·9E) and J 2 Light-buoy, 2¾ miles E. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.160

1 Tugs are not normally available at the oil berths, but can be obtained from Ra's Tannūrah; tugs are available for the LPG berths.

Traffic regulations

8.161

1 **Traffic separation scheme.** The Ra's al Ju'aymah TSS has been established for vessels departing Ra's al Ju'aymah. See 8.102.

Restricted area. Ra's al Ju'aymah Oil Terminal lies within a restricted area in which navigation is restricted to vessels under pilotage proceeding to or from the loading berths; a restricted area, surrounding the Qaţīf Oilfield, ajoins the Ra's al Ju'aymah restricted area in its SW corner; see 8.3.

Harbour

General layout

8.162

1 The oil terminal berths (26°56′N 50°03′E) are moored between about 7 and 9 miles NNE of the tank farm on Ra's al Ju'aymah; Qaţīf Oilfield (26°53′N 49°58′E), enclosed by a restricted area, lies between the oil terminal berths and Ra's al Qulay'ah (26°51′N 49°57′E). See 8.3. The LPG Terminal (26°52′N 50°03′E) lies S of the oil terminal berths at the outer end of a trestle pier extending about 5 miles NNE from the gas plant close SSE of Ra's al Ju'aymah.

Directions for entering harbour

(continued from 8.107)

Oil Terminal

8.163

1 From the vicinity of Ra's al Ju'aymah Oil Terminal pilot boarding position the track leads WSW, passing:

NNW of J 4 Light-buoy (N cardinal) (26°57′·6N 50°09′·9E) moored off the NE corner of a detached shoal with a least depth of 11·3 m, thence:

SSE of J 3 Light-buoy (S cardinal) (27°00′·5N 50°07′·3E), thence:

2 SSE of J 5 Light-buoy (S cardinal) (26°58′·8N 50°04′·6E) moored off the S end of a shoal area, with a least depth of 5·5 m and through to the oil terminal berths.

LPG Terminal and berths

8.164

1 From a position NW of J 4 Light-buoy (26°57′·6N 50°09′·9E) the track leads SSW, passing:

WNW of J 6 Light-buoy (N cardinal) (26°54′·7N 50°07′·8E) moored off the N extremity of Hayr Aş Şafrā' (8.109), thence:

SSE of Ra's al Ju'aymah Oil Terminal No 36 SBM Berth (26°55′·7N 50°05′·0E) and through to the LPG terminal anchorage (8.157) and pilot boarding position.

2 **Useful mark:**

Ra's al Ju'aymah Oil Terminal Control and Oil Handling Platforms (26°54′·9N 50°01′·3E); lights are exhibited from both platforms, the handling platform is also floodlit.

8.165

1 **Leading lights:**

Front light-beacon (26°51′·8N 50°02′·5E).

Rear light-beacon (300 m WSW).

From the anchorage the alignment (244¾°) of these light-beacons leads WSW to the LPG Terminal.

Useful mark:

J 8 Light-buoy (isolated danger) (26°54′·4N 50°03′·4E) moored on the W side of a detached shoal, with a least depth of 9·8 m, about 2 miles NNE of the terminal.

Directions for leaving harbour

Ra’s al Ju‘aymah Departure Channel

8.166

1 Vessels departing Ra’s al Ju‘aymah terminals use the 2 mile wide TSS departure channel entered W of Fasht Gharībah (27°00′N 50°13′E); the channel has depths throughout its length of over 40 m. From a position N of J 6 Light-buoy (26°54′·7N 50°07′·8E) the track leads initially NNE, passing:

WNW of J 4 Light-buoy (N cardinal) (26°57′·6N 50°09′·9E) (8.163), thence:

ESE of J 3 Light-buoy (S cardinal) (27°00′·5N 50°07′·3E), thence:

2 ESE of J 1 Light-beacon (black and white) (27°02′·3N 50°07′·9E) standing on the E side of a detached shoal, with a least depth of 0·9 m, thence:

WNW of J 2 Light-buoy (W cardinal) (27°02′·0N 50°10′·9E) moored about 2¾ miles E of the E extremity of Fasht Gharībah (8.107). Thence:

WNW and N of Exit Light-buoy (N cardinal) (27°10′·7N 50°12′·6E), thence:

N of Departure Light-buoy (27°10′·6N 50°24′·2E), thence:

3 S of Juaymah Light-buoy (safe water) (27°12′·6N 50°38′·9E) moored on the N side of the seaward end of the departure channel.

Berths

Mooring berths

8.167

1 Ra’s al Ju‘aymah Oil Terminal consists of two SPM and four SBM berths moored between about 7 and 9 miles NNE of Ra’s al Ju‘aymah; lights are exhibited from all buoys.

Berth	*Depth*	*Max dwt accepted*
SBM 31	32·1 m	500 000
SBM 32	33·8 m	500 000
SBM 33	34·0 m	500 000
SPM 34	35·0 m	750 000
SPM 35	32·0 m	750 000
SBM 36	33·8 m	450 000

Alongside berths

8.168

1 Ra’s al Ju‘aymah LPG Terminal consists of two loading berths with breasting dolphins; Berth 51 the outer, and Berth 52 the inner, lie either side of an L-shaped jetty head; a tower crane stands on the platform between the berths. Both berths can handle vessels up to 200 000 cubic metres capacity; alongside depths are 22·5 m, but lesser depths lie in the vicinity.

Port services

Repairs

8.169

1 See 8.140.

Other facilities

8.170

1 No oily waste reception facilities; see 8.141.

Supplies

8.171

1 Diesel oil and fresh water by barge from Ra’s Tannūrah; see 8.142.

Communications

8.172

1 See 8.204.

AD DAMMĀM INCLUDING KHAWR AL BĀB AND CHANNELS SOUTHWARDS

General information

Chart 3812

Position

8.173

1 Ad Dammām (Mīnā’ al Malik ‘Abd al ‘Azīz) (King Abdul Aziz Port) (26°30′N 50°12′E) is situated on reclaimed land, NE of the town of Ad Dammām; the port is connected to the mainland by a wide causeway.

Function

8.174

1 The main function of the port is the import of dry cargoes for E Saudi Arabia; the export of cement, urea and other commodities is increasing.

Topography

8.175

1 There is no significant high ground on the coast, but some rocky hillocks, about 15 m high and resembling the hulls of bāgalas (1.12), rise SW of Ad Dammām; the town of Sayhāt (26°29′N 50°02′E) lies close NW from where thick date groves extend about 8 miles N beyond the small fishing port of Al Qaţīf.

Port limits

8.176

1 The port limits extend seaward to include the entrance channel and the Inner Holding Anchorage (8.189).

Approach and entry

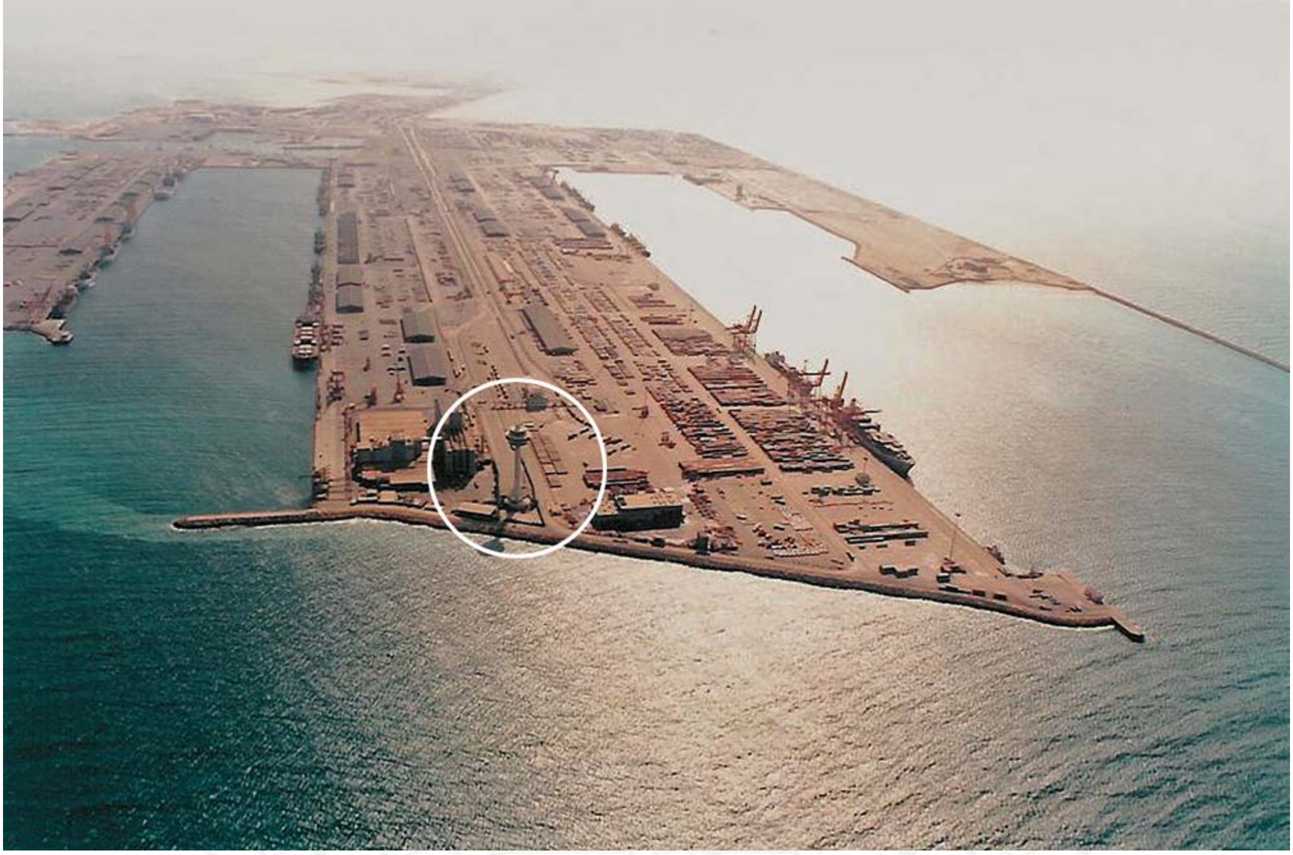
8.177

1 Ad Dammām is approached either from N through Main Channel (8.107) passing E of Ra’s Tannūrah Sea Islands; or from E through East Channel (8.110). The port is entered through a 400 m wide and 8 mile long channel, marked by light-buoys (lateral).

Traffic

8.178

1 In 2004, the port was used by 1400 vessels with a total of 29 777 061 dwt.



Port of Ad Dammām from NNE (8.179)

(Original dated 1999)

(Photograph – King Abdul Aziz, Port – Dammam SA)

Port Authority

8.179

1 Ad Dammām Port Management, PO Box 28062, Ad Dammām 31437, Saudi Arabia.

Limiting conditions

Controlling depth

8.180

1 There is a least depth in the inner channel of 14 m; there have been changes to depths and dredged areas in and around the port, mariners are advised to consult the port authorities for the latest information.

Deepest and longest berth

8.181

1 Container Terminal West Basin; see 8.198.

Tidal levels

8.182

1 Mean spring range about 1·7 m; mean neap range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

Abnormal water levels

8.183

1 Tidal levels can vary with the prevailing wind; changes of less than a metre are usual; changes of more than a metre have not been recorded.

Density of water

8.184

1 The density of the water is 1·030 g/cm^3.

Maximum size of vessel handled

8.185

1 The port has handled a vessel of over 146 000 dwt, length 260 m.

Arrival information

Port operations

8.186

1 Vessels bound for Ad Dammām using Main Channel (8.107) should keep to the E side of Ra’s Tannūrah Tanker Anchorage (8.135) when on passage between the S end of Main Channel and D 1 Light-buoy (26°37′·2N 50°14′·7E). Vessels outward bound from Ad Dammām, and intending to use Main Channel, should inform Ra’s Tannūrah Port Control of their ETA at the S end of Ra’s Tannūrah Tanker Anchorage; see 8.121. Within Ad Dammām inner approach channel speed should be limited to 8 kn; overtaking is prohibited.

Vessel Traffic Service

8.187

1 A mandatory Vessel Traffic Service is in operation for the control of shipping. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.188

1 ETA should be sent on departure from previous port, 5 days, 48 and 24 hours prior to arrival; vessels should contact the port when 1 hour from D 1 Light-buoy (26°37′·2N 50°14′·7E). See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.189

1 Anchorage berths within the port area are usually allocated by port control; the holding ground is generally good. Anchorage may be obtained in Ad Dammām Holding Anchorage (26°49′N 50°30′E) which lies N of East Channel (8.110) between RTE 2 and RTE 4 Light-buoys; vessels bound for Ad Dammām may be directed to anchor here if the inner anchorage is congested; see 8.127. The Inner Holding Anchorage (26°33′N 50°10′E), with depths of between 14 and 15 m, is entered from the W side of the channel in the vicinity of No 13 Light-buoy (starboard hand); the extent of the anchorage is marked by light-buoys (pillar, special).

2 **Prohibited anchorage.** Anchoring within the entrance channel is prohibited.

Submarine pipeline

8.190

1 A submarine oil pipeline, marked by beacons, is laid S from the W side of Ra's Tannūrah (26°38′N 50°10′E) to land E of the town of Ad Dammām.

Pilots

8.191

1 Pilotage is compulsory for all vessels over 150 grt except exempted vessels; the pilot normally boards between D 11 and D 13 Light-buoys (26°33′·5N 50°10′·9E) in the vicinity of the inner anchorage; vessels over 10 m draught pilot boards at the outer end of the entrance channel in the vicinity of D1 Light-buoy (26°37′·2N 50°14′·7E). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.192

1 Tugs are available.

Harbour

General layout

8.193

1 The port is built on reclaimed land connected to the mainland by a wide causeway, 3¼ miles long, with both road and rail connections. The main berths are situated in East and West Basins, each 400 m wide and separated by a large central quay; a third basin, in which are a repair yard and a small harbour, lies E of East Basin. Lights (lateral) are exhibited from the breakwater and moleheads forming the entrances to the various basins; lights are also exhibited from a detached breakwater N of the ship repair yard.

Natural conditions

8.194

1 **Tidal streams.** In the outer approaches the in-going stream sets SW and the out-going NE, across the E part of Hayr Shiqitah (26°40′N 50°30′E) (8.111) and the shoal area NW of Fasht al Jārim (26°28′N 50°30′E) (8.49); over Hayr Khawrah (26°41′N 50°18′E) (8.111) they set S with the in-going stream and N with the out-going. The edges of both Hayr Shiqitah and Hayr Khawrah are indicated by overfalls. Across the entrance to the port the in-going stream sets SE and the out-going N; tidal streams and currents of variable rates, rarely exceeding 2 kn, may be experienced in the approaches to the port; both are affected by local winds.

Principal marks

8.195

1 **Landmarks:**

A distinctive and conspicuous port control tower (see chart diagram) (26°30′·7N 50°12′·2E) on the outer end of the large central quay between East and West Basins; conspicuous grain silos stand close SE.

The oil storage tanks on Ra's Tannūrah (8.109).

Directions for entering harbour

(continued from 8.111)

8.196

1 From the vicinity of D 1 Light-buoy (starboard hand) (26°37′·2N 50°14′·7E), the track initially leads SW, then SE, through the channel, marked by light-buoys (lateral), passing:

NW of Najwah Shoal Light-beacon (white framework tower, red bands) (26°34′·2N 50°14′·5E) which stands in the shoal water WNW of the N extremity of Najwah, a low, sandy reef-bound island on a extensive shoal bank NE of the main port area, thence:

2 W of a light-buoy (W cardinal) (26°33′·1N 50°12′·3E) moored W of a stranded wreck (radar conspicuous) lying on the W side of the shoal water W of Najwah, thence:

E of the inner holding anchorage (8.189).

Useful marks:

Ra's Tannūrah Light (black metal framework tower, white band, 15 m high) (26°37′·6N 50°09′·8E) standing close off the S extremity of Ra's Tannūrah.

3 A stranded wreck (position approximate) (radar conspicuous) (26°33′·2N 50°14′·4E) lies off the W side of Najwah; a beacon stands in the shoal water about 5 cables S.

8.197

1 **Ad Dammām Leading Lights:**

Front light-beacon (white framework tower, red bands) (26°30′·0N 50°13′·5E) standing ENE of King Fahd Ship Repair Yard.

Rear light-beacon (similar structure) (370 m SE).

From a position SW of D 18 Light-buoy (26°32′·7N 50°11′·0E) the alignment (138°) of these light-beacons leads SE through the channel, passing SW of the Working Anchorage (8.200), to the entrances to the port basins.

2 **Useful mark:**

Radio tower (obstruction lights, 106 m high) (26°26′·2N 50°06′·6E) stands within the town of Ad Dammām near the root of the Al Shati peninsula.

Basins and berths

West Basin

8.198

1 West Basin is the larger of the two deep-water basins; it is about 1¾ miles in length and 2½ cables wide with seventeen alongside berths. Berths 23 to 26 form the container terminal; Berths 23, 35a and 36 can handle Ro-Ro traffic; Berths 36 to 38 are the bulk cement terminal; and Berth 39 is used for explosives. Alongside depths vary between 5·8 and 13·2 m. West Basin No 1 Light-buoy (starboard hand) is moored on the W side of the main dredged area; lights are exhibited from the vicinity of the bulk cement berths and the explosives berth.

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East Basin

8.199

1 East Basin is the smaller of the two main basins; it is about 1¼ miles in length and 2½ cables wide with twenty-two alongside berths. Berth 1 is used for grain; Berths 14 and 22 can handle Ro-Ro traffic. Alongside depths vary between 7·8 and 13·2 m.

Anchorage berths

8.200

1 **Working Anchorage.** A working anchorage (26°32′N 50°12′E), with depths generally of over 10 m except for a 9·8 m patch in its N corner, is entered from the NE side of the inner end of the approach channel; both N and E corners are marked by light-buoys (pillar, special).

Explosive Anchorage. An explosives anchorage (26°31′N 50°13′E), with depths between about 8 and 11 m, lies close ESE of the working anchorage.

Port services

Repairs

8.201

1 King Fahd Ship Repair Yard, situated in the outer NE part of the third basin, has two floating docks of up to 22 000 tonnes capacity, a synchrolift of 1500 tonnes capacity and an outfitting quay nearly 400 m long; a light is exhibited from a dolphin standing off the NW corner of the yard.

Other facilities

8.202

1 Hospital; port clinic; floating crane; lighterage; garbage reception facilities.

Supplies

8.203

1 Fuel oil; fresh water; stores all of which can be supplied to the anchorages.

Communications

8.204

1 King Fahd International Airport Dammām 75 km; Bahrain Airport 52 km; direct passenger rail service to Riyadh.

Harbour regulations

8.205

1 The regulations concerning the disposal of oils or waste are strictly enforced.

Dārīn Fishing Harbour

Chart 3777

Description

8.206

1 Dārīn (26°33′N 50°05′E) is a small town and fishing harbour in the SE part of Jazīrat Tārūt which stands on the coastal reef between Ad Dammām and Ra's Tannūrah, and is connected to the mainland by a causeway; thick groves of date palms grow on the E side of the island.

Landmark:

A prominent tower (26°34′·2N 50°03′·9E) stands near the centre of the island within the town of Tārūt.

Hazard. Fish traps and fish stakes exist on the coastal bank E of Jazīrat Tārūt.

Khawr al Bāb and channels southwards

Charts 3777, 3737, 3790

General information

8.207

1 **Route.** From the vicinity of No 1 Light-buoy (S cardinal) (26°29′·7N 50°16′·2E) moored E of the Port of Ad Dammām (8.173) the buoyed route through Khawr al Bāb leads generally S for about 23 miles to the navigational spans under Jisr al Malik Fahd (King Fahd Causeway).

Topography. Jabal Aẓ Ẓahrān (26°18′N 50°08′E), about 5½ miles SW of Ra's Kawākib, is the prominent SE summit of a range of hills which extend NW, its summit is formed by a long sloping hill from the middle of which rises a remarkable and rather flat-topped peak surmounted by twin radio towers. Aẓ Ẓahrān (Dhahrān) is a large nearby town in which are numerous oil tanks and other oil installations.

2 **Local knowledge** or the services of a pilot are required for this area.

Restricted area. Anchorage and fishing are prohibited within 500 m of King Fahd Causeway, its embankments and navigational channels.

Prohibited anchorage. Anchorage is prohibited within the restricted area of submarine pipelines laid between the mainland and the NW coast of Bahrain, NE of the causeway; the area is marked at intervals by light-beacons (single pile).

3 **Vertical clearances.** The main W navigational span of the King Fahd Causeway has a vertical clearance of 28 m over a depth of 7 m; the main E navigational span has a vertical clearance of 15 m over a depth of 5·5 m. A secondary channel, leading to Al Khubar, lies close off the Saudi Arabian shore and passes under a span with a vertical clearance of 15·5 m; another secondary span, with a vertical clearance of 13 m, lies between Umm al Na'san (8.27) and Bahrain.

Spoil ground. See 8.105.

4 **Tidal streams.** The in-going stream sets S along the W side of Fasht al Jārim (26°28′N 50°30′E) then SE between Fasht al Jārim and Khawr Fasht (26°21′N 50°23′E); the out-going sets N and NW. East and over Khawr Fasht they set S with the out-going stream and N with the in-going. Vessels entering Khawr al Bāb from Mina' al Manama (8.41) must take care with the W-going stream setting along the S sides of Khawr Fasht and Marwadah (26°19′N 50°27′E) as at times it can be very strong.

Refraction and mirage occasionally cause great difficulty in visual fixing within the channels leading S from Khawr al Bāb.

Directions

8.208

1 **Khawr al Bāb to Dawḩat Salwá.** From the vicinity of No 1 Light-buoy (S cardinal) (26°29′·7N 50°16′·2E) moored at the S end of the shallow bank extending S from Najwah Shoal (8.196), the track initially leads ESE, passing:

SSW of a detached shoal (26°29′·7N 50°19′·2E) with a least depth of 4·9 m, and:

NNE of Kaskūs (26°25′N 50°18′E), a sandbank standing on a drying reef about 5 miles NE of Ra's Kawākib; the bank is one of several sandbanks on the outer part of the coastal reef which undergo considerable alteration due to the strong winds and tidal streams. The shoals NE and ESE of Kaskūs form the W side of Khawr al Bāb. Thence:

2 NNE of No 2 Light-buoy (N cardinal) (26°27′·7N 50°21′·0E), thence:

SSW of Hayr aş Şarāh (26°32′N 50°23′E), a shoal bank, with a least depth of 3·6 m, extending about 6½ miles NW from Fasht al Jārim (8.49); over the rocky parts of the shoal the sea is much discoloured. Thence:

Clear of No 3 Light-buoy (E cardinal) (26°25′·2N 50°23′·2E); and W of No 4 Light-buoy (W cardinal), moored 5 cables SE, which mark the passage through an area of shoal water lying about 3 miles W of Ra’s al Laqfah (26°25′N 50°27′E), the steep-to W extremity of Fasht al Jārim (8.49), a cairn, 2 m high, stands near the point. Thence:

3 Clear of No 5 Light-buoy (safe water) (26°22′·9N 50°23′·0E) which marks the fairway E of the shoal areas on the W side of Khawr al Bāb. Thence:

W of the W extremity of Khawr Fasht (26°21′N 50°23′E); a cairn (2 m high) stands on the reef close E.

Useful mark:

Khawr Fasht Light-beacon (26°21′·3N 50°27′·1E) (8.212).

8.209

1 From Khawr al Bāb the track continues SE through a channel, marked by light-buoys (lateral), which leads between Khawr Fasht and Hayr al Raqah 2½ miles WSW, a drying reef and extensive sandbank on the W side of the channel. At the S end of the channel, W of a cairn (red and white, 3 m high) standing on the S extremity of Khawr Fasht, the track continues SSE to No 12 Light-buoy (safe water) (26°17′·1N 50°23′·1E), from where the route divides either continuing SSE to pass under the E main navigational span of King Fahd Causeway (8.207); or WSW then SW, to pass under its W main navigational span; both routes lead into the N part of Dawḩat Salwá (8.15).

8.210

1 **Eastern approach to Dawḩat Salwá.** From No 12 Light-buoy (safe water) the track continues SSE to pass between Hidd al Hamarah (Ḩadd al Ḩamārah), an area of reefs and shoals extending NNE from Jazīrat al Jisr (Al Jasser Island) (26°11′N 50°19′E), and the many shoals and drying rocks which lie W of Al Budayyi‘ (26°13′N 50°27′E) (8.25); thence through the E main navigational span of King Fahd Causeway (8.207), marked by lights (lateral).

Tidal streams in the channel W of Umm al Na‘san (26°09′N 50°24′E) set S and N at rates of up to 3 kn at springs.

2 **Useful mark:**

Light-beacons marking the submarine pipeline (8.207) laid between the mainland and Bahrain; a beacon (W cardinal) (26°12′·8N 50°22′·3E) stands in the pipeline area on the E side of the fairway.

8.211

1 **Western approach to Dawḩat Salwá.** From No 12 Light-buoy (safe water) the track leads initially WSW passing S of No 13 Light-buoy (S cardinal) (26°16′·8N 50°21′·9E) moored on the S side of a shoal patch with a least depth of 4·6 m.

Leading lights:

Front light-beacon (red and white) (26°16′·3N 50°20′·5E).

Rear light-beacon (red and white) (250 m WSW).

From the vicinity of No 13 Light-buoy (S cardinal) the alignment (248°) of these light-beacons leads WSW across the N extremity of Hidd al Hamarah passing N of No 18 Light-buoy (N cardinal) (26°16′·4N 50°20′·8E).

2 **Directional light:**

A directional light-beacon (red and white) (26°16′·6N 50°20′·9E).

From a position W of of No 18 Light-buoy the white sector (036½°–037½°) of the directional light, astern, leads SW through a channel, marked by light-buoys and beacons, to the W main navigational span of King Fahd Causeway (8.207) marked by lights (lateral), and the outer approaches to Al Khubar (8.213) and Al’ Azīzīyah (8.214). See vertical clearance 8.207.

Useful mark:

Light-beacons marking the submarine pipeline (8.207) laid between the mainland and Bahrain.

8.212

1 **Mina’ al Manama to Ad Dammām.** From a position N of Bahrain West Spit Light-buoy (26°17′·1N 50°32′·4E) the track leads NW, passing:

NE of West Spit (26°17′N 50°32′E) (8.45), the ESE extremity of the shoal bank extending ESE from Marwadah, thence:

SW of Jadoom (26°20′N 50°31′E) (8.45) which forms the SSE end of Fasht al Jārim, thence:

NE of Marwadah (26°19′N 50°27′E), a drying reef difficult to distinguish in the middle of the day when covered, but its position is usually indicated by the presence of birds; a beacon (red and white) marks the N extremity of the reef and a pipe stands on the E side of its S end. Thence:

2 NE of Khawr Fasht Light-beacon (metal pedestal on concrete base) (26°21′·3N 50°27′·1E) standing on the E side of Khawr Fasht, a drying reef of sand, rock and coral reported usually visible, but difficult to distinguish at high water if it occurs around midday. Artificial reefs are established N of Khawr Fasht, see 8.4. Thence:

SW of Jazīrat al Jadoom (26°24′N 50°28′E) (8.49), thence:

3 W of No 4 Light-buoy (W cardinal) (26°24′·8N 50°23′·6E), from where the track for Ad Dammām follows the reverse of the directions given at 8.208.

Harbours

Al Khubar

8.213

1 **Description.** Al Khubar Harbour (26°17′N 50°13′E), used by local fishing vessels, small coasters and passenger ferries, lies S of Ra’s Kawākib. The harbour is approached from S through a channel, marked by buoys and beacons, which leads N between the coastal bank and Ḩadd Shabib, a rocky shoal area fronting the coast, passing under the W secondary span of King Fahd Causeway (8.207).

Al’ Azīzyīah

8.214

1 **Description.** Al’ Azīzīyah (26°11′N 50°13′E) consists of a prominent desalination plant and a power station with five conspicuous chimneys and a jetty used by local tankers; a light-beacon (E cardinal) stands about 4 cables offshore. Two Royal Palaces, each with its own jetty are entered S of the plant; unauthorised navigation is prohibited in the approaches to both palaces.

Chart 2886

Ra's al Qurayyah

8.215

1 **Description.** Ra's al Qurayyah (25°53′N 50°06′E) consists of a desalination plant and a power station, with two chimneys, and a jetty used by local tankers; the approach channel is marked by beacons. No 21 Light-beacon stands on the coastal bank about 2½ miles SE of the jetty.

RA'S AL JU‘AYMAH TO RA'S AS SAFFĀNĪYAH

GENERAL INFORMATION

Chart 2882

Area covered

8.216

1 This section describes the coast from Ra's al Ju‘aymah (26°49′N 50°00′E) to Ra's as Saffānīyah (28°00′N 48°48′E) about 96 miles NW.

It is arranged as follows:

Port of Ra's al Ghār (8.219).
Jubail (8.239).
Jubail to Ra's as Saffānīyah (8.272).

Topography

8.217

1 The district of Nejd lies between Ra's al Ju‘aymah and Ra's as Saffānīyah, it is low, sandy or stony desert with a few isolated hills and fronted for nearly the whole distance by extensive reefs and several off-lying islets. With the exception of the ports of Ra's al Ghār (26°52′N 49°54′E), Jubail (27°01′N 49°40′E), Port Tanāqīb (27°47′N 48°52′E) and a few villages, the area is sparsely populated.

Depths

8.218

1 The water is not usually as clear in this area as farther S; in places the bottom is of a white clay and shoals do not, in consequence, show up well. Many patches of whitish muddy colour, apparently indicating shoals, are frequently seen where no change in depth exists, but the warning of discoloured water must never be disregarded.

PORT OF RA'S AL GHĀR

General information

Charts 3788, 3719

Position

8.219

1 The Port of Ra's Ghār (26°54′N 49°52′E) is situated on the E coast Saudi Arabia N of Ra's al Ghār, between Ra's al Ju‘aymah (26°49′N 50°00′E) and Jubail (27°01′N 49°40′E).

Function

8.220

1 The port is solely used for the import of building materials, not for general commercial operations.

Topography

8.221

1 See 8.217.

Approach and entry

8.222

1 The port may be approached from the vicinity of Juaymah Light-buoy (27°12′·6N 50°38′·9E), passing N of Ra's al Ju‘aymah Departure Channel (8.166) which leads to the pilot boarding position; the port is entered through a channel partially marked by light-buoys.

Port Authority

8.223

1 Seaports Authority of Saudi Arabia, PO Box 5162, Riyadh, Saudi Arabia.

Limiting conditions

Controlling depth

8.224

1 The final approach channel is dredged to 11 m (1980).

Deepest and longest berth

8.225

1 Outer N pier; see 8.237.

Tidal levels

8.226

1 Mean spring range about 1·2 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Vol 3.*

Arrival information

Notice of ETA required

8.227

1 ETA and request for a pilot should be sent 6 hours prior to arrival at the pilot boarding position. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.228

1 Anchorage may be obtained clear of the channel E of RAG 8 Light-buoy (26°55′·1N 49°53′·5E) in Z̧ulayfayn Anchorage in depths between 10 and 22 m; the anchorage is open to winds from N and NW which can blow strongly during a *shamāl*. A designated cargo anchorage area, with depths between 12·8 and 20 m, lies E of Z̧ulayfayn Anchorage adjoining Qaţīf Oilfield; a depth of 9·8 m lies on the boundary of the anchorage and the oilfield restricted area.

Pilotage

8.229

1 Pilotage is compulsory and available day and night; the pilot boards in position 27°13′N 50°11′E at the outer end of the channel, about 3 miles NNE of Ju‘aymah Exit Light-buoy (8.166). See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.230

1 A tug is available.

Restricted area

8.231

1 A restricted area surrounds Qaţīf Oilfield (26°53′N 49°58′E); see 8.3.

Harbour

General layout

8.232

1 The terminal consists of five piers, each about 180 m long, protected by a 300 m outer breakwater, all extending ESE from the outer part of a causeway connecting the port area with the shore 1¼ miles SSW.

Development. New breakwaters have been constructed in the vicinity of the chimneys (lit) about 4½ miles W of the causeway.

Tidal streams

8.233

1 Tidal streams set parallel to the coast at rates of between 1 and 2 kn.

Directions for entering harbour

8.234

1 From the pilot boarding position (27°13′N 50°11′E) the track initially leads SW to the outer end of the buoyed channel, passing:

NW of a shoal area (27°07′N 50°06′E) with a least depth of 3·6 m, thence:

SE of Jazīrat al Jurayd (27°12′N 49°57′E) (8.255) situated on the NW side of the Royal Saudi Navy Route (8.264).

2 The track continues through Ra's al Ghār Approach Channel, partially marked by light-buoys (lateral), which leads between off-lying shoals to Ȥulayfayn Anchorage (8.228) and the port area, passing:

SE of Fasht Umm al Jimāl (27°06′N 50°00′E), a rocky shoal with a least depth of 0·9 m near the S end of which stands a beacon, and:

NW of a shoal (27°04′N 50°03′E) with a least depth of 5·8 m, thence:

3 SE of a shoal (27°02′N 49°59′E) with a least depth of 1·9 m, lying 2¾ miles E of Essa Reef, on which stands a light-beacon (metal column, 8 m in height). A dangerous rock lies a farther 2 miles W on the N end of a shoal area. And:

NW of a shoal (26°59′N 50°02′E), with a least depth of 5·8 m in its S part, and marked on its SE side by J7 Light-buoy (S cardinal), thence:

To Ȥulayfayn Anchorage.

8.235

1 **Useful marks:**

Two groups of six chimneys (obstruction lights) stand 1½ miles and 1¾ miles W of Ra's Bāsiţ (26°53′N 49°48′E).

Two conspicuous chimneys (obstruction lights, 98 m in height) (26°51′N 49°54′E) stand near the coast about 2¼ miles ESE of Ra's al Ghār (26°52′N 49°52′E), a 10 m high cliff; oil tanks and other structures stand nearby. Ju'aymah Pier extends about 4 cables N from the vicinity of the chimneys; a light-beacon stands close N of its head.

2 Jabal Ȥulayfayn (26°51′·0N 49°50′·7E), a remarkable square black rocky hill, 20 m high, stands about 1½ miles SW of Ra's al Ghār.

8.236

1 **Ra's al Ghār Leading Lights:**

Front light-beacon (26°52′·5N 49°50′·8E) standing on a drying area of foreshore, E of the root of Ra's al Ghār Causeway.

Rear light-beacon (300 metres SW).

The alignment (214°) of these light-beacons leads SW through the final approach to the berthing piers.

Alongside berths

8.237

1 The SW berthing pier is a steel pontoon; all other piers, except the outer, have Ro-Ro ramps; the outer pier has an alongside depth of 12 m, all others 10 m.

Port services

Communications

8.238

1 See 8.204.

JUBAIL

General information

Charts 3788, 3719, 3718

Position

8.239

1 Jubail (Al Jubayl) (27°01′N 49°40′E) is situated on the E coast of Saudi Arabia, about 35 miles NW of Ra's Tannūrah (26°38′N 50°10′E).

Function

8.240

1 The port was constructed to relieve congestion at Ad Dammām and is split into two main parts, the Commercial Port and the King Fahd Industrial Port. Jubail is also a major industrial centre with steel mills, an aluminium smelter, petrochemical refineries and a fertiliser plant. Exports include refined oil products, petrochemicals, iron and steel goods, aluminium and sulphur; imports include iron ore concentrates, limestone, alumina and salt. King Abdul Aziz Naval Base (8.264), a Royal Saudi Navy docking and repair facility, lies about 3 miles S of Jubail Commercial Port.

Topography

8.241

1 Jazīrat al Bāţinah (27°14′N 49°30′E) lies about 13 miles NW of Jubail on the W shore of the shallow bay of Dawḩat Abū 'Alī in which is situated the Berri Oilfield (8.252). Ra's Abū 'Alī (27°18′N 49°42′E) is the E extremity of the island of Jazīrat Abū 'Alī which forms the N side of the bay; a shallow sandspit extends about 2½ miles E from the point. The islands are interconnected and Jazīrat al Bāţinah is connected to the mainland. Dawḩat ad Dafī is an extensive shallow inlet, W of Dawḩat Abū 'Alī, terminating S in a swamp. See 8.217.

Approach and entry

8.242

1 Both the Commercial Port and King Fahd Industrial Port are approached from NE through Jubail Approach Channel. The Commercial Port is then entered through a short channel, passing S of the detached East Breakwater and N of South Breakwater; King Fahd Industrial Port is entered through a short channel, passing S of North Breakwater and N of the detached East Breakwater.

Traffic

8.243

1 In 2004, the Port of Jubail was used by 1312 vessels with a total of 53 586 798 dwt.

Port Authority

8.244

1 Seaports Authority of Saudi Arabia, PO Box 276, Jubail Port Management, Jubail 31951, Saudi Arabia.

Limiting conditions

Controlling depths

8.245

1 Maximum arrival draught at Berths 1 to 8 in the Commercial Port is normally 10·8 m, increasing to 11·4 m at high water; at Berths 9 to 16 normally 12·6 m increasing to 13·3 m.

Deepest and longest berth

8.246

1 Berth 53, King Fahd Industrial Port; see 8.259.

Tidal levels

8.247

1 Mean spring range about 1·2 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Vol 3.*

Arrival information

Notice of ETA required

8.248

1 ETA should be sent 7 days, 72 hours, 48 hours and 24 hours prior to arrival; revised if any change occurs. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.249

1 Outer Anchorage (27°15′N 49°54′E) with depths between 37 and 48 m is entered from NW side of Jubail Approach Channel between No 1 and No 3 Light-buoys (starboard hand); its NW side is marked by ANCH 1 and ANCH 2 Light-buoys (special).

Inner Anchorage (27°09′N 49°47′E) with depths generally between 23 and 35 m is also entered from NW side of Jubail Approach Channel between No 5 and No 7 Light-buoys (starboard hand); its NW side is marked by ANCH 3 and ANCH 4 Light-buoys (special). Note a shoal patch, with a least depth of 18·5 m, lies in its NW part and a depth of 17·2 m lies on the W anchorage limits close N of No 7 Light-buoy.

2 Explosives Anchorage (26°58′N 49°50′E) with depths between 10 and 25 m lies between Ra’s al Ghār Approach Channel (8.234) and the Royal Saudi Navy Route (8.264).

Pilotage

8.250

1 Pilotage is compulsory for all vessels over 150 grt within the port area and is available day and night, except for LPG carriers which are moved by day only. Pilot boards as requested either near 27°07′N 49°47′E at the inner end of Jubail Approach Channel (8.255), or near 27°04′N 49°44′E in the vicinity of No 9 Light-buoy (starboard hand).

Tugs

8.251

1 Tugs are available.

Regulations

8.252

1 **Restricted area.** A restricted area surrounds Berri Oilfield (27°13′N 49°43′E) which contains many wellheads and other structures; the area should not be entered without permission, see 8.3.

Reporting. All vessels within the area should contact Jubail Port Control when passing Jubail Fairway Light-buoy (27°18′·6N 50°03′·0E). See *Admiralty List of Radio Signals Volume 6 (3).*

Harbour

General layout

8.253

1 The port area is formed by an extensive artificial basin, extending over 5 miles offshore, protected on its N side by a broad causeway extending ENE from the shore; on its E side by a detached breakwater; and on its SE side by South Breakwater. Open Sea Tanker Terminal lies at the outer end of the E end of the causeway.

Jubail Fishing Harbour (27°01′N 49°41′E) is a small basin, with alongside depths of 3 m, situated close W of the root of Jubail South Breakwater. A light-buoy (white conical) is moored on the W side of the approach and lights (lateral) are exhibited from its breakwaters. A small harbour (27°00′N 49°40′E) lies W of a breakwater, between Jubail Fishing Harbour and King Abdul Aziz Naval Base. The approach from E is through a channel, marked by buoys (lateral); a light is exhibited from the breakwater head.

Other aid to navigation

8.254

1 **Racon:**

Jazīrat al Jurayd (27°12′N 49°57′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

8.255

1 From the vicinity of Jubail Fairway Light-buoy (safe water) (27°18′·6N 50°03′·0E) the track leads SW through Jubail Approach Channel, marked by light-buoys (lateral), passing:

SE of Jazīrat Janā (27°22′N 49°54′E), a sand islet, 3 m high and covered with scrub, standing on a extensive steep-to reef; a light (metal tripod) is exhibited from the islet. JANA–E Light-buoy (E cardinal) (27°22′·7N 49°55′·7E) marks the edge of the coastal bank E of the islet; a stranded wreck lies on the reef 6 cables E of the light. JANA–W Light-buoy (W cardinal) (27°19′·9N 49°49′·2E) is moored close W of a detached shoal, with a least depth of 5·2 m, lying 4 miles WSW of the islet. Thence:

2 NW of JURAYD–N Light-buoy (N cardinal) (27°12′·9N 49°56′·8E) moored 1 mile NNW of Jazīrat al Jurayd, a sandy islet, 4 m high, covered with thin scrub; a light (post) is exhibited from close off the SE side of the islet. A conspicuous grey, 43 m high, round radar tower (obstruction lights) stands on the islet. Thence:

SE of REEF–E Light-buoy (E cardinal) (27°13′·2N 49°50′·8E) moored off the E side of a reef, with a least depth of 3·4 m, thence:

NW of a dangerous wreck (27°08′·2N 49°54′·2E) lying on the NW side of the Royal Saudi Navy Route (8.264) and through to the pilot boarding positions.

8.256

1 **Useful mark:**

Ra's Abū 'Alī Light-tower (15 m high) (position approximate) (27°17′·9N 49°44′·3E) standing on the shallow sandspit E of Ra's Abū 'Alī (8.241); a pier, about 3½ cables long, extends SSE from the point.

Directions for berths

Commercial Port

8.257

1 From the vicinity of No 9 Light-buoy (27°03′·8N 49°43′·6E) the track leads SSW, passing (with reference to South Breakwater Head Light (27°01′·8N 49°42′·0E)):

ESE of 12/CH 1 Light-buoy (E cardinal) (1½ miles NNE) moored at the E corner of the Tug and Barge Anchorage; and WNW of 10/CH2 Light-buoy (special pillar), moored 8 cables ESE at the outer end of King Abdul Aziz Naval Base Main Approach Channel (8.268). Thence:

2 NW of 15/CH4 Light-buoy (special pillar) (1¼ miles E) and through to the outer end of the short entrance channel, thence:

S of the S end of East Breakwater Head (5 cables ENE) from which a light is exhibited, thence:

N of South Breakwater Head, from which a light is exhibited, and through into the Commercial Port.

3 **Useful marks:**

Three flares (27°01′·8N 49°37′·6E) stand NW of the town, about 3 miles W of the Commercial Port.

Jubail Port Control Tower (27°01′·4N 49°40′·5E) standing near the SW end of the Commercial Port.

Water tower (26°59′·4N 49°39′·7E), standing near the shore about 1 mile S of the town.

King Fahd Industrial Port

8.258

1 From a position S of No 9 Light-buoy (27°03′·8N 49°43′·6E) the track leads WNW, passing (with reference to North Breakwater Head Light (27°04′·3N 49°42′·2E)):

SSW of the outer end of Open Sea Tanker Terminal Berths (1¼ miles E) from which lights are exhibited; and NNE of 12/CH 1 Light-buoy (E cardinal) (8.257) moored 1¼ miles SSW. Thence:

Between No 11 Light-buoy (starboard hand) (6 cables E) and No 14 Light-buoy (port hand) moored 4½ cables SSW, thence:

2 SSW of the S end of North Breakwater Head from which a light (white tower, green bands) is exhibited, thence:

NNE of the N end of East Breakwater Head (5 cables ENE) from which a light (white tower, red bands) is exhibited, and through into King Fahd Industrial Port.

3 **Useful mark:**

Gantry cranes on Berths 24 and 25.

Berths

Commercial Port

8.259

1 Jubail Commercial Port (27°01′N 49°41′E) lies either side of a broad central quay extending about 1 mile NE from the NE part of Jubail; its SE side is protected by South Breakwater; light-buoys (lateral) mark the dredged areas of the port. There are sixteen numbered berths; Berths 1 to 8, on the SE side of the quay, have dredged depths of 12 m (1977); Berths 9 and 10 at its NE end and 11 to 16 on its NW side, have dredged depths of 14 m. Berths 9 and 11 can handle bulk grain; 15 and 16 are the container terminal; a Ro-Ro ramp lies at the head of Berth 16.

King Fahd Industrial Port

8.260

1 King Fahd Industrial Port (27°05′N 49°42′E) lies at the outer end of a long causeway extending about 4 miles ENE from the mainland, NW of Jubail.

Petrochemical Basin lies between North Breakwater and a wide quay extending S from the causeway, it has seven numbered berths; Berths 41 to 44 on its W side and 51 to 53 on its E; vessels up to 100 000 dwt can be handled on a maximum draught of 14·4 m. The basin and its approaches are dredged to 16 m (1982).

2 Dry Bulk Terminal lies W of the Petrochemical Basin either side of a second wide quay extending S from the causeway; the terminal has nine numbered berths from 21 to 29; a Ro-Ro ramp is situated at the N end of Berth 29 and a small harbour lies close NE. The terminal and its approaches, marked by light-buoys (lateral), are dredged to 14 m (1977); maximum allowed draught 12·6 m. A depth of 9·5 m lies close E of the light-buoy (special) moored SE of Service Berth 11; Service Berths 11 to 16, for use by port craft, lie on a quay W of the Dry Bulk Terminal along with a slipway of 1000 dwt capacity.

3 Open Sea Tanker Terminal (27°05′N 49°43′E) lies at the outer end of an arm extending E from King Fahd Industrial Port; the terminal berthing pier extends over 2000 m SSE. Berths 61 to 64, have alongside depths between 26 and 28·5 m and can handle vessels up to 500 000 dwt; lights are exhibited from each end of the berthing pier and from near its centre.

Port services

Repairs

8.261

1 Slipway 1000 tonnes capacity within King Fahd Industrial Port.

Supplies

8.262

1 Fuel oil; fresh water, stores; garbage reception facilities.

Communications

8.263

1 King Fahd International Airport situated at Dammām.

King Abdul Aziz Naval Base

General information

8.264

1 **Position.** King Abdul Aziz Naval Base (26°58′N 49°42′E) is entered about 3 miles S of Jubail Commercial Port (8.259).

Function. The harbour is a Royal Saudi Navy docking and repair facility.

Topography. See 8.217.

Approach and entry. The base is approached through the Royal Saudi Navy Route which leads SE of Jazīrat al Jurayd (27°12′N 49°57′E) (8.255); the base is entered through either Main Approach Channel (8.268) or Secondary Approach Channel (8.269).

Limiting conditions

8.265

1 **Controlling depth.** Main Approach Channel, and the port area, is dredged to 12 m; note less water has been reported within the port area.

Tidal levels. See 8.247.

Arrival information

8.266

1 **Outer anchorage.** Anchorage may be obtained in the Naval Anchorage (27°03′N 49°48′E) which lies on the S side of the inner end of the Royal Saudi Navy Route. The anchorage is marked by light-buoys (special) and, on its NNW side, by J2 and J6 Light-buoys (port hand); the anchorage has depths between 11 and 32 m and a mooring buoy is laid near its centre.

Restricted area. The naval base lies within a restricted area; only authorised vessels are permitted to enter.

Harbour

8.267

1 **General layout.** The harbour is protected by breakwaters N and S and a detached breakwater; finger piers extend ESE from the NW side of the base; light-buoys mark the extent of the dredged areas within the port area. Lights are exhibited from N pier and each end of the detached breakwater; D2 Light-beacon stands on the edge of the shoal water 2 cables WNW of the head of the S breakwater.

2 **Degaussing range.** A degaussing range lies E of the main entrance; a buoy (white conical) marks its E limit. A range control building stands within the harbour, close off the WSW side of the detached breakwater; L 12 Light-buoy (special) is moored about 1½ cables W of the control building.

Development. New breakwaters have been constructed near chimneys (lit) about 5½ miles SE of the base.

Directions for entering harbour

8.268

1 **Main Approach Channel,** marked by light-buoys (lateral and special), leads SSW from a position WSW of the inner end of the Royal Saudi Navy Route through to the N entrance.

Main leading lights:

Front light-beacon RL2 (26°57′·9N 49°41′·6E) standing in the SSW part of the harbour.

Rear light-beacon RL1 (400 m SSW) standing on the SSW shore of the harbour.

2 From a position in the approach channel, the alignment (203°) of these light-beacons leads SSW through the inner part of the channel passing between the N end of the detached breakwater and the S end of North Breakwater, and its spur close SSW, into the main port area; lights are exhibited from the heads of the breakwaters. Range Light-buoy (26°58′·3N 49°41′·8E) is moored near the middle of the harbour on the leading line.

8.269

1 **Secondary Approach Channel** leads SSW from a position at the inner end of the Royal Saudi Navy Route, and parallels the Main Approach Channel (8.268) through to the short spur channel leading to the secondary harbour entrance.

Secondary leading lights:

Front light-beacon RL4 (26°57′·0N 49°42′·4E) standing close offshore ESE part of the base.

Rear light-beacon RL3 (600 m SSW) standing close inland.

2 From a position in the secondary approach channel the alignment (203°) of these light-beacons leads SSW, through the inner part of the secondary approach channel to the outer end of a short spur channel, marked by HE 3 and 4 Buoys; it then leads W, passing S of the S end of the detached breakwater and through into the main harbour area.

Useful mark:

A light (26°58′·7N 49°41′·9E) exhibited from the outer end of the spur extending S from the North Breakwater.

Berths

8.270

1 Five finger piers and quays are situated in the NW part of the harbour.

Port services

8.271

1 **Repairs:** A synchrolift is situated between the central finger piers.

JUBAIL TO RA’S AS SAFFĀNĪYAH

General information

Chart 2882

Route

8.272

1 Port Tanāqīb (27°47′N 48°52′E) (8.276) to Oilfield North Light-buoy (28°32′·0N 49°30′·1E); see 8.289.

Topography

8.273

1 Dawḩat al Musallamīyah (27°25′N 49°15′E) is an extensive bay which extends about 9½ miles W of the low sandy point of Ra’s az Zawr (Ra’s al Bidya’) (27°26′N 49°19′E); Jazīrat al Musallamīyah (27°24′N 49°13′E), on which are some low sandhills and a village with some trees in its NE part, lies within the bay. The bay is encumbered with numerous sandbanks and reefs, but these are usually visible and easily avoided; the mainland is low on its N side, but just S of Jazīrat al Musallamīyah there is a remarkable cliffy bluff.

Tidal streams

8.274

1 Tidal streams, in the vicinity of the islets lying between 22 and 50 miles NE of Ra’s Abū ‘Alī (27°18′N 49°42′E) (8.241), set W and E; between Al ‘Arabīyah (27°47′N 50°10′E) and Al Fārisīyah, 12 miles N, they appear to attain a rate of about 1 kn.

Area to be avoided

8.275

1 An IMO-adopted area to be avoided has been established in the vicinity of Fasht Buldānī (28°08′N 49°00′E). The area extends up to 30 miles offshore between Ra’s Tanāqīb (27°50′N 48°53′E) and Ra’s al Mish’āb, 25 miles NW; the extensive reefs of Fasht Buldānī are unsurveyed, parts are above water other parts dry, numerous breaking shoals have been reported to lie within it; in clear weather the reefs can be seen at a distance of 3 miles. In order to avoid the risk of polluting important seagrass banks and prawn breeding grounds due to stranding, or damage to oil or gas pipelines, all tankers, gas

carriers and chemical tankers regardless of their size, and all other vessels of more than 50 000 grt, should avoid the area.

Port Tanāqīb

Charts 2882, 3774, 3775

General information

8.276

1 **Position and function.** Port Tanāqīb (27°47′N 48°52′E) is situated on the E coast of Saudi Arabia about 3 miles S of Ra’s Tanāqīb; the port is a supply and maintenance base for oilfield supply vessels, there are no commercial facilities.

Topography. The coast between Ra’s al Ghār (27°32′N 49°13′E) and Ra’s Tanāqīb, 25 miles NW, which rises steeply to a flat-topped light-coloured hill, is mostly low with foul ground, chiefly of white clay, extending up to about 10 miles offshore; see 8.218. Jabal al Manīfah (27°36′N 48°56′E) is a small hill on the coast about 15 miles WNW of Ra’s al Ghār; Khawr Musharrabah (27°43′N 48°50′E) is an extensive inlet S of Port Tanāqīb, entered N of Dawḩat Sulayq.

2 **Approach and entry.** Port Tanāqīb may be approached from the vicinity of Al Fārisīyah (27°59′N 50°10′E) and entered through Tanāqīb East Channel (8.278); the port may also be approached from N of Ra’s as Saffānīyah (28°00′N 48°48′E) and entered through Tanāqīb North Channel (8.279). Port Tanāqīb lies within the restricted area surrounding Manīfah Oilfield (27°45′N 49°00′E); this area should not be entered without permission; see 8.3.

Port Authority. The port is operated by ARAMCO.

Tidal levels. Mean spring range about 0·9 m. See *Admiralty Tide Tables Vol 3.*

3 **Landmark:**

A power station (27°49′N 48°53′E) stands about 1 mile S of Ra’s Tanāqīb; a pier extends SE from the vicinity of the power station.

Major light:

Al Fārisīyah Light (27°59′·5N 50°10′·3E) (2.23).

Racons:

Al Fārisīyah (27°59′·5N 50°10′·3E).

TE 1 Light-beacon (27°45′·1N 49°24′·3E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

8.277

1 **Eastern Approach.** From a position S of Al Fārisīyah (27°59′N 50°10′E) (2.27) the track leads WSW for about 43 miles to the outer end of East Channel, passing:

NNW of Al ‘Arabīyah (27°47′N 50°10′E) from which a light is exhibited (2.23), thence:

NNW of Middle Shoal (27°49′N 49°56′E) with a least depth of 2·7 m; a light-buoy (isolated danger) is moored close E of the shoal; further shoal soundings have been reported (1982) to lie SW. Thence:

2 NNW of Jazīrat Karān (27°43′N 49°49′E), a low islet covered in brushwood; a light (metal tripod) is exhibited from the islet; a detached shoal with a least depth of 3·9 m lies 4¾ miles ESE. Jazīrat Kurayn, a low sandy islet, lies 4 miles S; a light (metal tripod) is also exhibited from the islet. Thence:

SSE of Jazīrat Ḩarqūş (27°56′N 49°41′E) (8.289), thence:

SSE of a detached shoal area (27°50′N 49°36′E) with a least depth of 4·9 m.

8.278

1 **East Channel.** The track continues W through East Channel, marked by light-beacons, passing:

Clear of TE 1 Light-beacon (27°45′·3N 49°24′·3E); a shoal, with a least depth of 6·6 m, lies 2½ miles S of the beacon, and one with a least depth of 8·2 m lies 1¾ miles WSW. Thence:

N of a light-beacon (27°42′·9N 49°21′·3E) standing on the N side of a drying shoal which forms part of an extensive area of dangerous reefs and shoals NW of Fasht al Kash, thence:

2 S of a shoal (27°46′·0N 49°21′·1E), with a least depth of 9·4 m, and an unmarked rocky shoal (27°48′N 49°19′E) over which the sea breaks, thence:

S of an unmarked dangerous rocky shoal (27°48′N 49°19′E) over which the sea breaks, thence:

Clear of TE 2 Light-beacon (position approximate) (27°45′·2N 49°18′·6E); and N of a shoal, with a least depth of 7·9 m, lying 1 mile SW. Thence:

N of a shoal (27°44′N 49°15′E), with a least depth of 7 m, thence

3 Clear of TE 3 Light-beacon (27°45′·4N 49°13′·2E), thence:

N of a light-beacon (27°43′·8N 49°11′·7E) standing on the SW side of a shoal area with depths less than 3 m; an obstruction close WNW of the light is the remains of a ruined tower. Thence:

S of a shoal (27°47′N 49°11′E) with a least depth of 1·6 m.

The channel continues W between numbered light-beacons to the vicinity of the port.

4 **Useful marks:**

Fasht al Kash Light (metal column, 8 m high) (27°32′·3N 49°33′·4E) exhibited from near the mid part of the E side of Fasht al Kash, an unsurveyed ledge of numerous reefs and drying banks.

Fasht Buldānī (FBS) Light-beacon (27°54′·1N 49°20′·0E) standing in the SE corner of Fasht Buldānī; a stranded wreck (position approximate) lies about 10½ miles W within the area to be avoided (8.275).

8.279

1 **North Channel,** marked by light-beacons, is entered N of Ra’s as Saffānīyah (28°00′N 48°48′E) between TN–1 and TN–2 Light-beacons; the channel is narrow and in places tortuous. Initially the track leads E, then S, passing E of Dawḩat al Khurays, an extensive bight S of Ra’s as Saffānīyah, it continues through the N part of Manīfah Oilfield to the vicinity of the port.

Useful marks:

A pipe (28°00′·2N 48°50′·3E) on the N side of the fairway about 5 cables ENE of TN–4 Light-beacon.

2 A beacon (27°58′·9N 48°49′·3E) in the N approach to Dawḩat al Khurays.

A pile (27°57′·5N 48°52′·0E) E of the drying banks extending from the S part of Dawḩat al Khurays; a pipe stands about 1½ miles SSW.

Port Tanāqīb Leading Lights:

Front light-beacon (red metal piles, white bands) (27°47′·0N 48°52′·3E).

Rear light-beacon (similar structure) (390 m W).

3 From the outer port area the alignment (270°) of these light-beacons leads to Port Tanāqīb.

Other facilities: Fuel oil and fresh water available to supply vessels; mobile cranes.

Anchorage and harbour

Dawḩat Manīfah

8.280

1 **Description.** Dawḩat Manīfah (27°35′N 48°54′E) is a small inlet SW of Jabal al Manīfah (8.276) where there is a customs point and a jetty with a crane; a buoyed channel leads S into the inlet; local knowledge is required. Dawḩat Bilbūl, a small bay adjoining the NW part of Dawḩat Manīfah, affords anchorage to boats.

Jazīrat Karān

8.281

1 Anchorage may be obtained off the SE side of Jazīrat Karān (27°43′N 49°49′E) (8.277), but due to the reef fringing the islet vessels should not anchor in depths less than 30 m; depths shoal rapidly.

RA’S AS SAFFĀNĪYAH TO RA’S BARD ḨALQ

GENERAL INFORMATION

Chart 3774

Area covered

8.282

1 This section describes the coast from Ra’s as Saffānīyah (28°00′N 48°48′E) to Ra’s Bard Ḩalq (28°30′N 48°30′E), 34 miles NNW.

It is arranged as follows:

Port Tanāqīb to Oilfield North Light-buoy through the Marjan and Zuluf TSS (8.284).

Mīnā’ Ra’s Mish‘āb (8.291).

Ra’s al Khafjī Oil Terminal (8.314).

Topography

8.283

1 The coast of Bandar Mish’āb, between Ra’s as Saffānīyah (28°00′N 48°48′E) and Ra’s Mish’āb, 15 miles N, a low and sandy point faced in places with low cliffs, is for the most part low; Mīnā’ Ra’s Mish‘āb is situated on the W side of the N part of the bay. Jabal Thaluf stands about 6½ miles W of Ra’s as Saffānīyah on the E side of a creek entered from the S part of the bay; it has a bluff on its N side which rises in two steps to an elevation of 22 m. Jazīrat al Maqţa (28°10′N 48°38′E), which stands on the shoal bank S of Ra’s al Mish’āb is covered with grass and brushwood, and has cliffs from 6 to 9 m high on its E side. Ra’s Bard Ḩalq (28°30′N 48°30′E) is a low, white and sandy point from which a shallow spit extends NE; a small unnamed bay lies between the point and Ra’s al Khafjī, 5½ miles SSE.

PORT TANĀQĪB TO OILFIELD NORTH LIGHT-BUOY THROUGH THE MARJAN AND ZULUF TRAFFIC SEPARATION SCHEME

General information

Charts 3775, 3774

Route

8.284

1 From the vicinity of TE 1 Light-beacon (27°45′·3N 49°24′·3E) (8.278) the route initially leads N for about 30 miles to the S end of the Marjan and Zuluf TSS; it continues NNE for about 21 miles through the TSS to Oilfield North Light-buoy (28°32′·0N 49°30′·1E).

Depths

8.285

1 Depths are generally in excess of 20 m.

Area to be avoided

8.286

1 See 8.275.

Traffic regulations

8.287

1 **Traffic separation scheme.** The Marjan and Zuluf TSS has been established between the Zuluf Oilfield (28°25′N 49°15′E) and Marjan Oilfield (28°26′N 49°38′E) for shipping passing between E of Port Tanāqīb (8.276) and the outer approaches to Khalīj al Kuwayt (8.477), and the oilfields N.

The TSS is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See the *Annual Summary of Admiralty Notices to Mariners.*

Other aid to navigation

8.288

1 **Racons:**

TE 1 Light-beacon (27°45′·3N 49°24′·3E).

Oilfield South Light-buoy (28°15′·0N 49°18′·6E).

FBN Light-beacon (28°16′·9N 49°05′·0E).

Oilfield North Light-buoy (28°32′·0N 49°30′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

8.289

1 From a position E of TE 1 Light-beacon (27°45′·3N 49°24′·3E) the track initially leads N, passing:

Clear of a well head (27°47′·6N 49′26′·8E) situated within a danger circle, thence:

W of a detached shoal (27°50′·1N 49°36′·5E), with a least depth of 4·9 m, thence:

E of an unmarked drying rock (0·3 m high) (27°48′N 49°19′E) and the dangerous shoal extending NE, thence:

2 W of Jazīrat Ḩarqūş (27°56′N 49°41′E), a small sandy islet, 1 m high, with a narrow fringing reef; a light (beacon; 4 m high) is exhibited from the islet. Thence:

E of Fasht Buldānī FBS Light-beacon (27°54′·1N 49°20′·0E) (8.278) marking the SE corner of the area to be avoided (8.275). Thence:

W of a shoal patch (28°06′·7N 49°31′·9E), with a least depth of 7·3 m; Field Patch N Light-buoy (N cardinal) is moored close N, thence:

3 E of Fasht Buldānī FBE Light-beacon (28°07′·2N 49°10′·3E) standing within the area to be avoided, thence:

E of Oilfield South Light-buoy (safe water) (28°15′·0N 49°18′·6E) and through the TSS. The separation zone is marked by light-buoys (safe water) and the lane limits by light-buoys (lateral).

After passing Oilfield North Light-buoy (28°32′·0N 49°30′·1E) (safe water) at the N end of the TSS, the track leads to the various oilfields N of the TSS, Khalīj al Kuwayt (8.477) or as required.

4 **Useful mark:**

FBN Light-beacon (28°16′·9N 49°05′·0E).

Anchorages

8.290

1 Zuluf Oilfield Anchorage (28°18′N 49°15′E) lies close S of the restricted area surrounding the Zuluf Oilfield; Marjan Anchorage (28°20′N 49°43′E) lies close E of the restricted area surrounding the Marjan Oilfield.

MĪNĀ’ RA’S MISH‘ĀB

General information

Charts 3774, 1224 plan of approaches to Ra’s Mish‘āb

Position and function

8.291

1 Mīnā’ Ra’s Mish‘āb (Bandar Mish‘āb) (28°07′N 48°38′E) is situated on the E coast of Saudi Arabia, about 5 miles S of Ra’s al Mish’āb; the port services the King Khalid Military City at Al Batīn.

Topography

8.292

1 See 8.283.

Approach and entry

8.293

1 The direct route to the port is obstructed by the Khafjī and Saffānīyah Oilfields; the port may be approached by vessels of suitable size by passing S of the outer end Ra’s al Khafjī TSS (8.328), SE of Ra’s al Khafjī No 3 Light-buoy (isolated danger) (28°35′·0N 48°51′·4E) and ESE of the inner section of the TSS through to Mīnā’ Ra’s Mish‘āb Approach Channel which then leads SSW between Jazīrat al Maqţa (8.283) and Qaşār al Mitma.

Port Authority

8.294

1 Ministry of Defence and Aviation, Riyadh, Saudi Arabia.

Limiting conditions

Controlling depth

8.295

1 The inner approach channel is dredged to 11 m (1977); maximum permitted draught 10·7 m.

Deepest and longest berth

8.296

1 Main jetty; see 8.310.

Tidal levels

8.297

1 Mean spring range about 1·0 m. See *Admiralty Tide Tables Vol 3.*

Arrival information

Port radio

8.298

1 Mīnā’ Ra’s Mish‘āb Radio is operational Saturday to Thursday between 0300 and 1400 hours and for the 12 hours before a vessel is expected. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.299

1 ETA should be sent 24, 12 and 2 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.300

1 Anchorage may be obtained clear of the fairway about 12½ miles NNE of Ra’s al Mish’āb (28°12′N 48°38′E); anchoring in the vicinity of the pilot boarding position is not recommended due to the proximity of shoal water. Advice should be obtained from the Harbour Master.

Prohibited anchorage. Anchoring and fishing are prohibited within the restricted areas; see 8.303.

Pilotage

8.301

1 Pilotage is compulsory and is available during daylight only; pilot boards 5 miles ENE of Ra’s al Mish’āb. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.302

1 Tugs are available.

Restricted area

8.303

1 A restricted area, enclosing a submarine oil pipeline in which anchoring and fishing are prohibited, lies across the approaches to the port between Khafjī Oilfield (28°30′N 48°58′E) and Hout Oilfield, 7 miles N. A similar area, which encloses submarine pipelines and power cables, lies between Ra’s al Khafjī (28°24′N 48°32′E) and Khafjī Oilfield. A restricted area surrounds Khafjī Oilfield (28°30′N 48°58′E) which may only be entered by authorised vessels; a similar area surrounding the Saffānīyah Oilfield (28°17′N 48°50′E) should not be entered; see 8.3.

Harbour

General layout

8.304

1 The main jetty extends ENE from a causeway across the drying coastal bank into the N part of Mīnā’ Ra’s Mish‘āb. A barge pier is situated N of the causeway and a disused loading wharf lies about 1 mile NNE of the main jetty; clusters of piles that supported of a former aerial cableway lie between the disused wharf and the shore.

Spoil grounds

8.305

1 An area of spoil ground lies ESE of the junction of the outer and inner legs of the entrance channel; drying spoil grounds lie SE of the outer part of the channel and close NW and SE of the turning area off the main jetty.

Principal mark

8.306

1 **Landmark:**

Jabal ‘Amūdah (28°10′N 48°36′E) is a dark volcanic-looking hill standing near the coast between Mīnā’ Ra’s Mish‘āb and Ra’s al Mish’āb; from NE it appears as four hummocks.

Other aid to navigation

8.307

1 **Racon:**

FBN Light-beacon (28°16′·9N 49°05′·0E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

Approach

8.308

1 From a position S of K1 Light-buoy (port hand) (28°36′·1, 49°57′·9E), moored on the S side of the outer end of the E bound lane of the Approach to Ra’s al Khafjī TSS (8.328), the track initially leads W, between the Khafjī and Hout Oilfields, then generally SSW through Mīnā’ Ra’s Mish‘āb Approach Channel, passing:

S of K2 Light-buoy (28°36′·6, 49°57′·9E) (port hand); see 8.303. Thence:

SE of Umm ash Shayahīn (28°35′·3N 48°51′·4E), a dangerous shoal, with a least depth of 0·2 m; No 3 Light-buoy (isolated danger) is moored S of the shoal. Thence:

2 NW of the WNW side of the restricted area surrounding Khafjī Oilfield; see 8.3. Thence:

SE of Umm al Gharabī a drying shoal; No 5 Light-buoy (28°33′·9N 48°48′·1E) (S cardinal) is moored S of the shoal. Thence:

WNW of the restricted area surrounding Saffānīyah Oilfield; see 8.3. Thence:

ESE of a wreck (28°22′N 48°41′E) with a least depth of 3·8 m and the dangerous wrecks WNW and S, all marked by buoys (conical), thence:

3 Clear of Mīnā’ Ra’s Mish‘āb No 4 Light-buoy (safe water) (28°19′·2N 48°45′·2E), thence:

ESE of the shoal (28°18′·3N 48°42′·7E), with a least depth of 8·8 m, thence:

ESE of Qaşār Umm as Sahāl (28°14′·6N 48°40′·3E), a drying shoal area situated on the wide, shallow, and foul coastal bank; a stranded wreck lies about 1 mile NE of the shoal. Thence:

To the pilot boarding position.

4 **Useful mark:**

Silos (obstruction lights) (28°06′·8N 48°38′·0E) stand on the main jetty; further silos stand WSW on the causeway.

Entry

8.309

1 From the pilot boarding position the track leads SSW to the fairway buoy (red and white can) moored ESE of the drying, sandy ridge extending ESE from Ra’s al Mish’āb (28°12′N 48°38′E).

Outer beacons:

Front beacon (metal tower; rectangular topmark, black and white stripe) (28°07′·1N 48°40′·0E).

Rear beacon (similar structure) (5½ cables SW).

From the vicinity of the fairway buoy the alignment (217¼°) of these beacons leads SW through the outer section of the channel, marked by light-buoys (lateral).

2 **Inner beacons:**

Front beacon (metal tower; rectangular topmark, black and white stripe) (28°06′·8N 48°38′·0E).

Rear beacon (similar structure) (2 cables WSW).

From a position at the inner end of the outer section of the channel, the alignment (251½°) of these beacons leads WSW through the inner section, marked by light-buoys (lateral), to the 380 m wide turning basin off the main jetty.

Berths

8.310

1 The main jetty, about 930 m long, provides eight berths with alongside depths of 11·9 m (1977). A barge pier, 5 cables N of the root of the causeway, is approached through a channel, dredged to 3·6 m, marked by buoys (lateral).

Port services

Other facilities

8.311

1 Emergency medical services only.

Supplies

8.312

1 Not available.

Communications

8.313

1 Small airport SW of the port area.

RA’S AL KHAFJĪ OIL TERMINAL

General information

Charts 3773, 1224

Position

8.314

1 Ra’s al Khafjī Oil Terminal (28°27′N 48°36′E) is situated off the E coast of Saudi Arabia between Ra’s al Khafjī (28°24′N 48°32′E) and Ra’s Bard Ḩalq, 5½ miles NNW.

Function

8.315

1 The terminal is a major Saudi Arabian oil export facility.

Topography

8.316

1 Ra’s al Khafjī (28°24′N 48°32′E), a sandy point which may be identified by oil tanks and chimneys standing nearby, lies N of Dawḩat al Aslī, a shallow bay entered between Ra’s al Khafjī and Ra’s al Mish’āb, 14 miles SSE; dangerous and drying shoals lie within the bay. Khawr al Maqţa (28°25′N 48°32′E) is entered close NW of Ra’s al Khafjī. See 8.283.

Approach

8.317

1 The terminal is approached through the Ra’s al Khafjī TSS; see 9.68.

Traffic

8.318

1 In 2004, Ra’s al Khafjī Oil Terminal was used by 37 vessels with a total of 9 873 197 dwt.

Port Authority

8.319

1 Ra’s al Khafjī Port Authority, PO Box 366, Al Khafjī 31971, Saudi Arabia.

Limiting conditions

Controlling depth

8.320

1 SBM Berth No 4 is moored in a depth of 21·4 m; maximum permitted draught 19·5 m, or 20·1 m on a rising tide.

Tidal levels

8.321

1 Mean spring range about 1·3 m. See *Admiralty Tide Tables Vol 3.*

Density of water

8.322

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

8.323

1 SBM Berths 3 and 4 can handle vessels between 100 000 dwt and 300 000 dwt.

Arrival information

Port operations

8.324

1 Berthing at Berths 1 and 2 daylight only; Berths 3 and 4 undertaken day and night. Berths 1 and 2 are used by tankers up to 243 m in length, who moor on a NNW heading to two anchors with one mooring buoy forward and three aft; loading undertaken one berth at a time.

Notice of ETA required

8.325

1 ETA should be sent 72 and 6 hours prior to arrival; contact port control when within VHF range. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.326

1 Anchorage may be obtained in depths of around 20 m, good holding of mud and clay, in Tanker Anchorage an area of 2 miles diameter centred about 8 miles NE of Ra's al Khafjī; vessels using the anchorage should inform the port control. Dry cargo vessels may obtain anchorage in depths between 11 and 15 m, good holding of mud and clay, in Dry Cargo Anchorage an area of 1 mile diameter centred about 2¾ miles N of Ra's al Khafjī; No 14 Light-buoy (special) is moored in its centre; foul ground lies in its NW and W parts.

2 **Prohibited anchorage.** Anchoring and fishing are prohibited in the vicinity of the pipelines laid from Ra's al Khafjī to the loading berths; see 8.303.

Pilotage

8.327

1 Pilotage is compulsory for all tankers using the terminal; mooring master boards in the Tanker Anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Traffic regulations

8.328

1 **Traffic separation scheme.** The Approach to Ra's al Khafjī TSS has been established for shipping bound for Ra's al Khafjī. The inbound lane leads 19 miles W, passing between Lulu and Hout Oilfields, then about 10 miles SW to Tanker Anchorage. The scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See *Annual Summary of Admiralty Notices to Mariners.*

Tugs

8.329

1 Tugs and mooring boats available.

Harbour

General layout

8.330

1 The terminal provides four offshore loading berths situated between 2¾ miles and 6½ miles NE of Ra's al Khafjī within a restricted area (8.303). A light-buoy (S cardinal) is moored E of No 2 Berth on the S side of a shoal area with a least depth of 14 m; No 13 Light-buoy (special) is moored W of Berth 1 marking a submarine pipeline; a disused loading dock (lit) lies W of Berth 2.

Natural conditions

8.331

1 **Tidal streams** flow generally parallel with the shore attaining a maximum rate of 1½ kn; the direction and strength of the streams are much affected by prevailing weather conditions.

Directions for entering harbour

8.332

1 From a position E of the outer end of the W bound lane of the Ra's al Khafjī TSS, marked by light-buoys (lateral, safe water and cardinal), the track leads through the TSS, initially W then SSW, passing:

Between C1 Light-buoy (safe water) (28°38′·3N 49°06′·0E) and H1 Light-buoy (starboard hand), moored 1 mile N; and through into the W bound lane of the TSS, thence:

N of Umm ash Shayahīn (28°35′·3N 48°51′·4E) (8.308), thence:

2 N of Umm al Gharabī (28°33′·9N 48°48′·0E) (8.308), thence:

ESE of Jazīrat Umm al Marādim (28°41′N 48°39′W) (8.380) and the shoals extending E from the islet, thence:

ESE of a shoal area (28°37′N 48°42′E), with a least depth of 17·7 m, lying outside of the SSW bound lane, close WNW of H4 Light-buoy (E cardinal), thence:

To the anchorage and the pilot boarding position S of H5 Light-buoy (special) (28°30′·7N, 48°39′·5E).

3 **Useful mark:**

Ra's al Khafjī Light (28°27′·1N 48°35′·9E) is exhibited from the terminal's valve control platform; a light is also exhibited from a disused loading berth about 1½ miles SW of the control platform.

Berths

8.333

1 Ra's al Khafjī Oil Terminal consists of SBM Berths 3 and 4, and mooring Berths 1 and 2.

Berth	*Depth*	*Draught*	*Max dwt accepted*
1	16·2 m	14·3 m	500 000
2	33·8 m	15·2 m	500 000
3	34·0 m	16·5 m	500 000
4	35·0 m	19·5 m	750 000

Draught at Berth 3 may be increased to 17·1 m on a rising tide and Berth 4 to 20·1 m.

Port services

Repairs

8.334

1 Minor emergency repairs only.

Other facilities

8.335

1 Hospital; no oily waste reception facilities.

Supplies

8.336

1 Fuel oil available at Berth 2 and by barge; fresh water in emergency only; limited stores and provisions available with advance notice.

Port of Ra's al Khafjī

Chart 1224 plan of Ra's al Khafjī

General information

8.337

1 **Position.** The Port of Ra's al Khafjī (28°25′N 48°32′E) lies within Khawr al Maqţa.

Approach and entry. The port is approached from NE of Ra's al Khafjī and entered close NW of the point.

Port Authority. Ra's al Khafjī Port Authority, PO Box 366, Al Khafjī 31971, Saudi Arabia.

Limiting conditions

8.338

1 **Controlling depth.** The approach channel is dredged to 5·5 m; lesser depths reported.

Tidal levels. See 8.321.

Harbour

8.339

1 **General layout.** The small harbour of the Port of Ra's al Khafjī lies close within the entrance to Khawr al Maqţa; a breakwater extends ESE from a stony spit of land on the NW side of the harbour, a light is exhibited from the head of the breakwater.

Directions for entering harbour

8.340

1 **Inner leading lights:**

Front light-beacon (triangular topmark) (28°24′·7N 48°31′·3E) standing on the S bank of the harbour.

Rear light-beacon (similar topmark) (340 m SW) standing on the SE side of a bridge spanning the inner port.

From a position close SE of the Dry Cargo Anchorage (8.326) the alignment (234½°) of these light-beacons leads SW, through a channel marked by light-buoys (lateral), to the inner harbour; a wreck (28°26′·3N 48°33′·9E), with a least depth of 8·6 m over it, lies close SE of the outer end of the leading line.

2 **Useful mark:**

Light-buoys (special) marking the obstructions at the outer end of the outfall pipe (28°25′·2N 48°32′·6E) within the restricted area off Ra's al Khafjī.

KUWAIT

GENERAL INFORMATION

Chart 2884

Area covered

8.341

1 This section describes the coast, port and terminals of Kuwait from NW of Ra's Bard Ḩalq (28°30′N 48°30′E) to Ra's al Ḩimārah, 64 miles NNW, the N entrance point to Khalīj al Kuwayt (8.477).

It is arranged as follows:

- Outer Approaches to Khalīj al Kuwayt (8.350).
- Mīnā' az Zawr (8.361).
- Mīnā' 'abd Allāh (8.387).
- Mīnā' ash Shu'aybah (8.415).
- Mīnā' al Aḩmadī (8.444).
- Mīnā' ash Shuwaykh and Approaches (8.477).

Topography

8.342

1 The coast between Ra's al Qulay'ah (28°53′N 48°17′E) and Ra's al Arḑ, 30 miles NNW, is low and stony, brown coloured desert; a few miles inland hills rise to between 60 and 90 m.

Anchorages

8.343

1 Anchorages off the coast of Kuwait provide little shelter from the *shamāl* and the considerable sea that this wind can raise; in depths less than 15 m the bottom is sand or rock, in greater depths mud.

Tidal streams

8.344

1 The in-going stream generally sets NNW and the out-going SSE; tidal streams are strong.

Mine danger areas

8.345

1 A mine danger area lies off the coast of Kuwait from N of Qiţ 'at Banāyā (28°37′N 48°26′E) to W of Arḑ Bard Ḩalq, 8 miles SSE; there are no swept routes through this area.

Former mined areas, in which mines may still present a hazard, lie off the coast of Kuwait (29°00′N, 48°45′E) and in the whole of Khalīj al Kuwayt (8.477). Anchoring, fishing or seabed operations are not recommended anywhere within these former mined areas; anchoring should only be undertaken within the designated anchorages. Additionally drifting mines may be encountered anywhere within this region.

2 See 1.7, 9.68 and *Annual Summary of Admiralty Notices to Mariners No 6.*

Aids to navigation

8.346

1 The aids to navigation in the area covered by this section are reported unreliable. They may be missing, unlit or out of position. Vessels should navigate with particular caution.

Jazīrat Faylakāh and adjacent islets

Chart 3773

Jazīrat Faylakāh

8.347

1 **Description.** Jazīrat Faylakāh (29°26′N 48°20′E) lies 10 miles NE of Ra's al Arḑ (8.504) on an extensive shallow flat of mud, sand and rock forming part of the much larger Abū Jezza Flat. Drying coastal reefs and banks surround the island; its highest part, 9 m high, rises near its SW end. Az Zawr is a small town on its W side with off-lying breakwaters (lit); a harbour and ferry terminal are situated in its S part close, W of Ra's al Qiḩḩah (29°25′·9N 48°16′·0E); lights (lateral) are exhibited from the harbour entrance. M31 Light-beacon (S cardinal) stands close SSW of Ra's al Qiḩḩah; a radio mast (obstruction lights, 310 m high) is near the S coast of the island about 2 miles E of the point.

2 M27 Light-beacon (E cardinal) stands 3 miles NNW of Ar Ra's, the SE extremity of the island, and M26 Light-beacon (N cardinal) 1 mile NNW of Ra's al Luqfah, its N extremity, both beacons mark shoal water on the SW side of the approach to Al Hilaybī (9.235). M30 Light-beacon (S cardinal) stands close off the drying coastal reef 2¼ miles SE of Ra's al Yāḩī, a point on the SW side of the island.

Restricted area. A restricted area (8.497) lies SW of Ra's al Qiḩḩah.

Jazīrat ‘Awhah

8.348

1 **Description.** Jazīrat ‘Awhah (29°23′N 48°26′E) is a low and sandy islet covered with scrub about 2 miles SE of the SE extremity of Jazīrat Faylakāh; a light (white metal framework tower, black bands; 20 m high) is exhibited from its centre. M29 Light-beacon (E cardinal) stands in the outer approaches to Al Hilaybī about 1¾ miles ENE of the islet, close E of a drying reef; a dangerous wreck (position approximate) lies 8 cables WNW of the light-beacon. Caution is necessary in this vicinity, the reef is steep-to and soundings give no warning of its proximity.

Jazīrat Miskān

8.349

1 **Description.** Jazīrat Miskān (29°29′N 48°15′E) is a sandy islet, about 2 miles NW of the N end of Jazīrat Faylakāh, on the extensive mud flat extending SE from Khawr as Şabīyah (9.235); M23 Light-beacon (black metal framework tower, 11 m high) stands on the SW side of the islet. Maskān Reef M25 Light-beacon (N cardinal) stands near the edge of the drying reef N of the islet; M24 Light-beacon (W cardinal) stands W of the islet.

2 **Side channel.** Al Wakir is a shallow passage between Jazīrat Faylakāh and Jazīrat Miskān which leads from the approaches to Khalīj al Kuwayt (8.477) to the outer end of Khawr as Şabīyah; M22 and M21 Light-beacons (special) mark drying shoals in its N part; M26 Light-beacon (N cardinal) (8.347) stands on the E side of the N end of the passage.

OUTER APPROACHES TO KHALĪJ AL KUWAYT

General information

Chart 2884

Route

8.350

1 From the head of Persian Gulf in the vicinity of 28°50′N 49°30′E, the outer approach leads W for about 64 miles to the vicinity of Aḩmadī Light-buoy (safe water) (28°56′·2N 48°53′·1E).

Other aids to navigation

8.351

1 **Racons:**

Oilfield North Light-buoy (28°32′·0N 49°30′·1E).
Aḩmadī Light-buoy (28°56′·2N 48°53′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 2.27)

8.352

1 From the vicinity of 28°50′N 49°30′E, and clear of the well-head enclosed by a danger circle (28°52°·1N, 49°30′·4E), the track leads W passing:

N of Lulu Oilfield (28°44′N 49°25′E). The remains of Lulu 1, a destroyed platform, marked by light-buoys (N and S cardinal) stands within a restricted area in the NE part of the oilfield; Lulu 2 platform is within a restricted area 9 miles SSW; see 8.3. Thence:

S of Soroosh Terminal (29°01′N 49°27′E) (2.28), thence:

2 SSW of Dorra Oilfield (28°57′N 49°07′E) which lies within a restricted area; see 8.3. A light-buoy (N cardinal) (28°57′·8N 49°02′·5E) moored off its W side marks a wreck with a swept depth of 21 m. And:

NNE of Hout Oilfield (28°47′N 49°00′E) which lies within a restricted area; see 8.3. Thence:

The track continues to the vicinity of Aḩmadī Light-buoy (safe water) (28°56′·2N 48°53′·1E) moored at the outer end of Mīnā' al Aḩmadī Deep Water Departure Channel (8.470).

(Directions continue for Mīnā'az Zawr at 8.380 and Mīnā' ‘abd Allāh, Mīnā' ash Shu‘aybah and Mīnā' al Aḩmadī at 8.407)

Khawr al Mufattah

Charts 3773, 3774

General information

8.353

1 **Description.** Khawr al Mufattah (28°39′N 48°23′E) and Khawr al A'ma, entered close N, are situated on the S coast of Kuwait, close to the Saudi Arabian border. The inlets are mainly used by fishing boats, but a barge and lighter jetty, mainly used by oil companies, is situated within Khawr al Mufattah; foul ground lies between the inlets. A sandbar lies across the entrance to Khawr al Mufattah which may be crossed, by small lighters, 2½ hours either side of high water through a marked channel.

2 **Port Authority.** Kuwait Ports Authority, PO Box 3874, 13039 Safat Kuwait.

ETA should be sent 72 hours prior to arrival to port authority and agent.

Mine danger area. See 8.345.

Directions

8.354

1 From a position about 1½ miles NNW of Qiţ ‘at Banāyā (28°37′N 48°26′E) Khawr al Mufattah is entered from SE; see 8.345.

Al Khīrān Leading Lights:

Front light-beacon (metal framework structure, 12 m high; visible 290°–320°) (28°39′·5N 48°23′·6E).

Rear light-beacon (metal framework structure, 15 m high; visible 290°–320°) (28°39′·5N 48°23′·5E).

The alignment (305°) of these light-beacons leads NW through the marked channel.

2 **Useful mark:**

Qiţ ‘at Banāyā Light-beacon (N cardinal) (28°37′·1N 48°25′·7E) exhibited from a small drying reef of the same name.

Anchorage may be obtained in the roadstead about 2 miles seaward of the port.

Landing may be made in Al Khīrān Marina situated on the N side of the entrance to Khawr al Mufattah.

3 **Facilities:** small lighters for cargo handling in roadstead; cranes on jetty.

Ra’s al Qulay’ah Naval Base

Chart 3773

General information

8.355

1 **Position.** Ra’s al Qulay’ah Naval Base (28°52′N 48°17′E) is situated close SSW of Ra’s al Qulay’ah.

Function. The harbour is a Kuwaiti Naval facility.

Topography. See 8.342.

Approach and entry. The port is approached from E and entered through a channel marked by light-buoys (lateral).

Limiting conditions

8.356

1 **Tidal levels.** Mean spring range about 1·8 m; mean neap range about 0·4 m. See *Admiralty Tide Tables Vol 3.*

Arrival information

8.357

1 **Restricted area.** A restricted area, in which anchoring and fishing are prohibited, extends up to 3 miles offshore and 2 miles N and S of the harbour.

Harbour

8.358

1 **General layout.** The harbour area is enclosed by protective breakwaters from which lights (lateral) are exhibited; other lights are exhibited within the base from various jetties and quays.

Tidal stream. See 8.344.

Directions for entering harbour

8.359

1 From a position about 2 miles S of the light-buoy (special) (28°54′·6N 48°28′·3E), marking a wellhead with a least depth of 20 m, the track initially leads W, passing:

N of No 4 Light-beacon (E cardinal) (28°48′·8N 48°25′·9E) standing on the NNE edge of the coastal bank extending about 5 miles NNE of Ra’s az Zawr, a low sandy point. Depths of 4·1 m lie near the E edge of the bank. Thence:

2 N of Qiţ’at Salama Light-beacon (isolated danger) (28°47′·8N 48°23′·3E) standing on the SE side of a dangerous shoal on the edge of the coastal bank, thence:

S of M40 Light-beacon (E cardinal) (28°56′·0N 48°21′·8E) standing on the NE part of the drying and foul shoal spit extending 6 miles NE of Ra’s al Qulay’ah, a low point forming the N entrance to Dawḩat az Zawr, a shoal encumbered bay.

8.360

1 **Naval Base Leading Lights:**

Front light-beacon (26°52′·1N 48°17′·0E).

Rear light-beacon (400 m W).

2 The alignment (265°) of these light-beacons leads W to the outer end of the entrance channel, marked by light-buoys (lateral), passing:

S of M39 Light-beacon (isolated danger) (28°55′·3N 48°19′·9E) standing near the middle of the shoal spit extending NE from Ra’s al Qulay’ah, thence:

N of a dangerous shoal (28°49′·7N 48°20′·2E), with a least depth of 1·9 m, lying close off the coastal bank; a similar shoal, with a least depth of 1·4 m, lies 8 cables SW. A light-beacon (N cardinal) stands about 1½ miles farther S on Qiţ’at Bnaider, a dangerous shoal on the edge of the coastal bank.

3 **Useful marks:**

Light-beacons (cardinal) (28°51′N 48°18′E) mark a number of dangerous shoal areas S and SE of the harbour.

M41 Light-beacon (N cardinal) (28°54′·3N 48°16′·2E).

MĪNĀ’ AZ ZAWR

General information

Charts 3773, 1223 plan of Mīnā’ az Zawr

Position and function

8.361

1 Mīnā’ az Zawr (Mīnā’ Sa’ūd) oil terminal berths lie off the Kuwaiti coast, ENE of Ra’s az Zawr (28°45′N 48°24′E); the terminal is an oil export facility operated by Saudi Texaco.

Approach and entry

8.362

1 From the vicinity of of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) the terminal is approached from ENE passing SE of Mudayrah Reef (28°56′N 48°46′E) and NW of Jazīrat Qārū (28°49′N 48°47′E).

Traffic

8.363

1 In 2004, the port was used by 90 vessels with a total of 22 102 281 dwt.

Port Authority

8.364

1 Saudi Arabian Texaco Inc, PO Box 6, Mīnā’ az Zawr (Mīnā’ Sa’ūd), 66051 Az Zawr, Kuwait.

Limiting conditions

Controlling depth

8.365

1 The SPM is moored in a depth of 20 m; see 8.382.

Tidal levels

8.366

1 Mean spring range about 2·0 m, but heights may be affected by meteorological conditions, in exceptional

conditions varying by more than 1 m; mooring masters have access to tidal information from the MET (Metocean) Tower (8.381). See *Admiralty Tide Tables Vol 3.*

Density of water

8.367

1 The density of the water is 1·032 g/cm^3.

Maximum size of vessel handled

8.368

1 See 8.382.

Arrival information

Port operations

8.369

1 The SPM Berth is the operational berth; Berth 2 is a stand-by facility in the event of damage to the main berth; if the stand-by berth is used mooring is undertaken on a N heading to the out-going stream, vessels are berthed using the mooring buoys and both anchors laid as indicated by marker buoys.

Notice of ETA required

8.370

1 ETA should be sent 96 and 72 hours prior to arrival; confirmation at 48 and 24 hours. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.371

1 Anchorage may be obtained by vessels awaiting a berth in Tanker Anchorage, about 5 miles ENE of Ra’s az Zawr (28°45′N 48°24′E), in one of the three designated positions; the holding of mud and sand is reported good. Deep draught vessels approaching the anchorage should keep the conspicuous flare (8.378) on Ra’s az Zawr bearing less than 273°, keeping N of the 15 m depth contour.

Prohibited anchorage. Anchorage is prohibited within the restricted area (8.375).

Submarine pipeline

8.372

1 A submarine pipeline connecting the terminal berths with the shore extends E from Ra’s az Zawr; the red sector of Ra’s az Zawr Light (8.381) covers the line of the pipeline; see 8.375.

Pilotage

8.373

1 Pilotage is compulsory for all vessels; the pilot/mooring master boards in Tanker Anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.374

1 Tugs are available.

Restricted area

8.375

1 The terminal berths and their connecting submarine pipelines lie within a restricted area in which anchorage is prohibited.

Harbour

General layout

8.376

1 The terminal has two offshore loading berths; a single SPM and No 2 Berth with multiple mooring buoys and a seabed manifold with a least depth over it of 16·4 m.

A small harbour (28°42′N 48°23′E) with depths of 4·6 m and entered from W, lies close ESE of the power station with two conspicuous chimneys (8.378); lights are exhibited from its breakwaters and the approach beacons. A pier, 6 cables S of the harbour used by service craft, has depths of 3·6 m in its approach and alongside; a light is exhibited from its head.

Tidal streams

8.377

1 The in-going stream at the terminal sets NNE, and the out-going SSW; the start of the SSW stream may be taken as 2 hours before the local predicted time of high water.

Principal marks

8.378

1 **Landmarks:**

A conspicuous flare stack (28°44′·2N 48°23′·1E) stands about 6 cables SW of Ra’s az Zawr; a radio mast stands about 3 cables W of the point; numerous oil tanks in the vicinity of the point are radar conspicuous.

A power station (28°42′·6N 48°22′·5E), with two conspicuous chimneys, stands near the coast about 2½ miles SSW of Ra’s az Zawr.

Other aid to navigation

8.379

1 **Racon:**

Aḩmadī Light-buoy (28°56′·2N 48°53′·1E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 8.352)

8.380

1 From the vicinity of of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) (8.352) the terminal is approached from ENE, passing:

SSE of the shoal bank, with a least depth of 16·1 m, which extends SE of Mudayrah Reef (28°56′N 48°46′E), a steep-to reef, with a least depth of 1·4 m, lying on the S side of the outer end of Mīnā’ al Aḩmadī Deep Water Departure Channel (8.470). In good weather the presence of the reef is only indicated by the slight overfalls in its immediate vicinity, in bad weather it probably breaks. A light-beacon (white pedestal, red bands, on metal tripod) stands on the NW edge of the reef. Thence:

2 NNW of S33 Light-beacon (N cardinal) (28°50′·3N 48°45′·8E) standing on the N edge of a detached shoal, with a least depth of 0·3 m, about 1 mile NNW of Jazīrat Qārū, a low sandy islet surrounded by a drying bank and shoal ground; buildings and a landing jetty are situated on its W end and a stranded wreck lies on its W side; a light is exhibited from near its centre. Depths in the vicinity of the islet are no guide to the proximity of the off-lying shoals; the islet should be given a wide berth. Thence:

3 NNW of a shoal patch (28°46′N 48°36′E), with a least depth of 16·9 m, lying about 6 miles NNW of

Jazīrat Umm al Marādim, a sandy islet, about 6 m high whose SE end is covered in brushwood; a light is exhibited from the S end of the islet. S31 light-beacon (N cardinal) (28°42′·9N 48°37′·9E) stands on the N edge of a drying reef N of the islet. Thence:

SSE of a shoal patch (28°49′N 48°33′E), with a least depth of 19·5 m, thence:

To the tanker anchorage and pilot boarding position.

8.381

1 **Useful marks:**

S8 Light-beacon (28°48′·8N 48°25′·9E) (8.359).

MET (Metocean) Tower (white metal structure) (28°46′·0N 48°26′·1E) standing N of Berth 2 off the E side of a spur of the coastal bank extending NNE from Ra’s az Zawr.

Qiţ’at Salama Light-beacon (28°47′·8N 48°23′·3E) (8.359).

2 Light-beacons 1–5 (cardinal) which stand ENE and NNW of Ra’s az Zawr (28°45′N 48°24′E), between about 1¼ miles and 1½ miles offshore, along the 5 m contour of the coastal bank.

Az Zawr Light-beacon (S cardinal) (28°44′·7N 48°24′·1N) standing on the S edge of the drying bank of white sand close NE of Ra’s az Zawr.

Ra’s az Zawr Light (28°44′·5N 48°23′·7E), a sectored light exhibited from close SW of Ra’s az Zawr; the red sector (253°–273°) covers Berth No 2 and indicates the lie of the submarine pipelines (8.372). A stranded wreck lies on the coastal bank about 9 cables SSW of the point.

Berths

8.382

1 Mīnā’ az Zawr Oil Terminal consists of a mooring berth and a SPM berth laid E and ENE of Ra’s az Zawr respectively; lights are exhibited from all the buoys and the SPM.

Berth	*Depth*	*Max dwt accepted*
SPM	19·0 m	400 000
No 2	16·4 m	140 000

Berth 2 may accept larger vessels for part loading or bunkering; a minimum size of 40 000 dwt accepted at the SPM.

Port services

Repairs

8.383

1 No regular repair facilities, but a maintenance barge available; divers available.

Other facilities

8.384

1 Emergency medical treatment only.

Supplies

8.385

1 Fuel oil available at each berth; no fresh water available; stores and provisions available with advance notice.

Communications

8.386

1 Kuwait International Airport (8.511).

MĪNĀ’ ‘ABD ALLĀH

General information

Charts 3773, 1223

Position and function

8.387

1 Mīnā’ ‘abd Allāh (Mina Abdulla) Sea Island Terminal (29°02′N 48°12′E) lies about 2 miles ESE of Petroleum Products Pier (8.439); it is a major oil export facility operated by the Kuwait National Petroleum Company.

Topography

8.388

1 See 8.342.

Port limits

8.389

1 The port limits extend seaward and include the terminal and its associated submarine pipelines.

Approach

8.390

1 The terminal and pilot boarding position are approached through the Mīnā’ al Aḩmadī (South) TSS (8.404), then N of Qiţ’ at ‘Urayfijān (29′00′N 48°16′E) (8.407); for alternative approach see 8.504.

Traffic

8.391

1 In 2004, the terminal was used by 49 vessels with a total of 3 374 551 dwt.

Port Authority

8.392

1 Kuwait Ports Authority, PO Box 3874, 13039 Safat, Kuwait.

Limiting conditions

Controlling depth

8.393

1 There are depths less than 17 m between terminal and the inner end of the TSS.

Tidal levels

8.394

1 See 8.453 and *Admiralty Tide Tables Vol 3.*

Density of water

8.395

1 The density of water is 1·030 g/cm^3.

Maximum size of vessel handled

8.396

1 Berth 19 can handle vessels up to 276 000 dwt on a maximum draught of 16·31 m.

Arrival information

Port operations

8.397

1 All shipping movements and the operations of Mīnā’ ‘abd Allāh are controlled by Mīnā’ al Aḩmadī port radio. See *Admiralty List of Radio Signals Volume 6 (3).*

Vessel Traffic Service

8.398

1 See 8.426.

Home Contents Index

Notice of ETA required

8.399

1 ETA should be sent 72, 48, 24 and 12 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.400

1 Anchorage may be obtained by vessels waiting for a berth at Mīnā’ ‘abd Allāh Sea Island Terminal and Mīnā’ ash Shu‘aybah Petroleum Products Pier Anchorage in an area centred about 2½ miles E of Mīnā’ ‘abd Allāh Terminal; if the anchorage is congested vessels should anchor farther E; see 8.428.

Waiting anchorage. A waiting anchorage area has been established between the outer end of Mīnā’ al Aḩmadī TSS (South) and Deep Water Departure Channel (8.470); the anchorage has depths of about 25 m and is used by tankers waiting instructions.

2 **Prohibited anchorage.** Anchoring is prohibited in the restricted area between the terminal and the shore.

Submarine pipeline

8.401

1 A submarine pipeline, marked at intervals by light-buoys (special), lies within a restricted area surrounding the terminal and its pipelines; further pipelines extend from the shore within the restricted area.

Pilotage

8.402

1 Pilotage is compulsory for all vessels; pilot boards about 1½ miles ENE of Sea Island Terminal and remains throughout stay; vessels should not approach the terminal without a pilot embarked. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.403

1 Tugs are available.

Traffic regulations

8.404

1 **Traffic separation scheme.** The Mīnā’ al Aḩmadī Traffic Separation Scheme (South) has been established for vessels approaching Mīnā’ ‘abd Allāh, Mīnā’ ash Shu‘aybah and Mīnā’ al Aḩmadī Terminals from SE. The inbound lane is entered 10 miles ENE of Ra’s al Qulay’ah (28°53′N 48°17′E) and leads NW and WNW for 10 miles, passing SW of Deep Water Departure Channel (8.470) and NW of Qiţ’ at ‘Urayfijān (29′00′N 48°16′E); see also 8.496.

The scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See *Annual Summary of Admiralty Notices to Mariners.*

Harbour

General layout

8.405

1 Mīnā’ ‘abd Allāh Sea Island Terminal is situated about 2½ miles offshore ENE of the terminal’s service harbour; the terminal island has an overall length of about 390 m with a berth each side; lights are exhibited from its outer dolphins and from the the entrance to the service harbour.

Principal marks

8.406

1 **Landmark:**

The oil refinery and tank farm (29°01′N 48°09′E) close W of the service harbour.

Major light:

Jazīrat Kubbar Light (29°04′·3N 48°29′·5E) (8.435).

Directions for entering harbour

(continued from 8.352)

Approach

8.407

1 From a position about 4 miles S of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) (8.352) the track initially leads WNW, keeping S of Mīnā’ al Aḩmadī Deep Water Departure Channel (8.470), passing:

SSW of the shoal bank (28°55′N 48°48′E), with a least depth of 16·1 m, extending SE from Mudayrah Reef (8.380), thence:

NNW of S33 Light-beacon (N cardinal) (28°50·3N 48°45·8E) standing on the N edge of a detached shoal area, with a least depth of 0·3 m, about 1 mile NNW of Jazīrat Qārū (8.380).

2 The track continues WNW keeping S of Mīnā’ al Aḩmadī Deep Water Departure Channel and the light-buoys (lateral and cardinal) marking the route, passing:

NNE of light-buoy (special) (28°54′·6N 48°28′·3E) marking a wellhead with a least depth of 20 m and through to the outer end of the NW bound lane of the Mīnā’ al Aḩmadī TSS (South) (8.404), thence:

NNE of M40 Light-beacon (E cardinal) (28°56′·1N 48°21′·7E) (8.359) standing near the NE end of the shoal spit extending NE of Ra’s al Qulay’ah, thence:

3 SW of S6 Light-buoy (29°01′·2N 48°23′·5E) and NE of S5 Light-buoy (special) (8.464), 1¾ miles SW, at the change of direction of the TSS. Thence:

NNE of Qiţ’ at ‘Urayfijān (29′00′N 48°16′E), a dangerous, circular coral reef over 3 cables in extent which is fairly steep-to; a light-beacon (E cardinal) stands on the E side of the reef. Thence:

4 SSW of North and South Piers Anchorage (29°04′N 48°17′E) (8.459), thence:

To the anchorage or pilot boarding position.

(Directions continue for Mīnā’ ash Shu‘aybah at 8.437 and for Mīnā’ al Aḩmadī at 8.469)

Useful mark:

S1/S4 Light-buoys (special) moored on the parallel of 29°00′N either side of Qiţ’ at ‘Urayfijān (29′00′N 48°16′E).

Entry

8.408

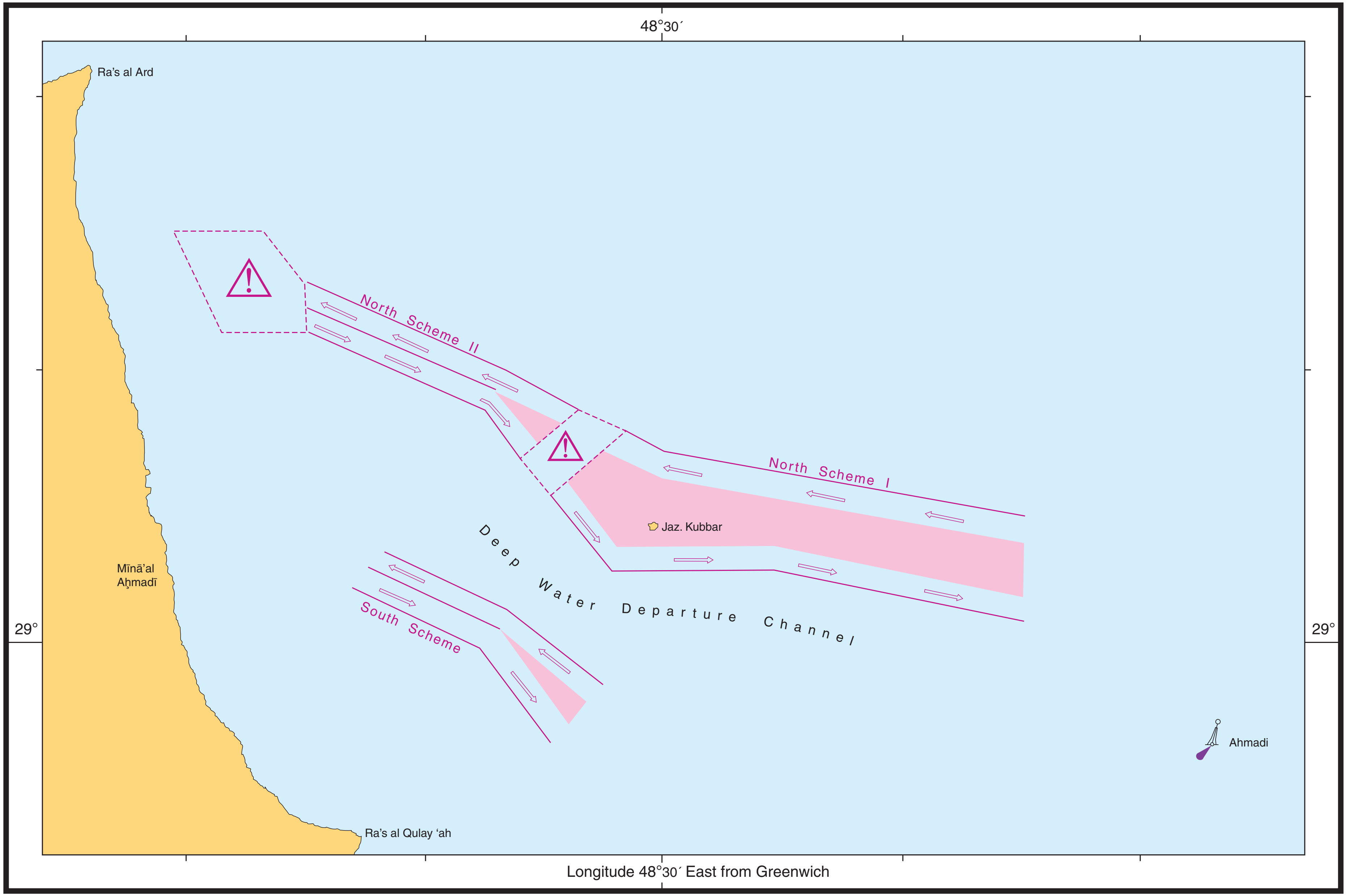
1 **Leading Lights:**

Front light-beacon (29°00′·2N 48°09′·7E) standing near the shore about 8 cables S of the terminal service basin.

Rear light-beacon (730 m WSW).

From a position in the NW part of Mīnā’ ‘abd Allāh Anchorage (8.400) the alignment (247°) of these light-beacons leads WSW to approach the terminal from S.

Traffic separation schemes off Mīnā' al Aḩmadī



2 **Useful mark:**

C2 Light-buoy (special) (29°01′·0N 48°12′·6E) moored about 5½ cables S of the terminal; a similar light-buoy is moored about 7 cables WNW.

Directions for leaving harbour

Departure

8.409

1 From a position NNE of Outer Harbour anchorage (29°03′N 48°14′E) (8.428) the departure route leads SSE, then SE, for about 11½ miles, passing NNE of Sea Island Terminal and Petroleum Pier anchorage (29°02′N,48°15′E) (8.400) and through the outbound lane of the Mīnā’ al Aḩmadī TSS (South).

Berths

8.410

1 Mīnā’ ‘abd Allāh Sea Island Terminal has two loading berths.

Berth	*Depth*	*Max dwt accepted*
18	17·38 m	140 000
19	17·98 m	276 000

Port services

Repairs

8.411

1 **Repairs:** No repair facilities; engine repairs may only be undertaken with written permission of port authority.

Other facilities

8.412

1 Medical facilities available; deratting exemption certificates only; no oily waste reception facilities.

Supplies

8.413

1 Fuel oil available at both berths: fresh water available in emergency by barge; no oily waste reception facilities.

Communications

8.414

1 Kuwait International Airport (8.511).

MĪNĀ’ ASH SHU‘AYBAH

General information

Charts 3773, 1223

Position

8.415

1 Mīnā’ ash Shu‘aybah (Shuaiba) (29°03′N 48°10′E) is situated on the coast of Kuwait 2½ miles WNW of Mīnā’ ‘abd Allāh Sea Island Terminal (8.387).

Function

8.416

1 The port is the second port of Kuwait for commercial traffic and mainly serves the Shuaiba industrial area.

Topography

8.417

1 See 8.342.

Port limits

8.418

1 The port limits extend seaward to include the Outer Harbour and its anchorages, Inner Harbour, Petroleum Products Pier and the main harbour basin.

Approach and entry

8.419

1 Mīnā’ ash Shu‘aybah and the pilot boarding position are approached from the inner end of the Mīnā’ al Aḩmadī TSS (South) (8.407), passing N of Mīnā’ ‘abd Allāh Sea Island Terminal; the main basin is entered N of Petroleum Products Pier between protective mole breakwaters; for alternative approach see 8.504.

Traffic

8.420

1 In 2004, the port was used by 574 vessels with a total of 15 705 271 dwt.

Port Authority

8.421

1 Kuwait Ports Authority, PO Box 10099, 65451 Shuaiba, Kuwait.

Limiting conditions

Controlling depth

8.422

1 There is a least depth in main basin of 12·4; alongside depths at the main berths vary between 11·2 m and 13·2 m.

Tidal levels

8.423

1 See 8.453 and *Admiralty Tide Tables Vol 3.*

Density of water

8.424

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

8.425

1 The Petroleum Products Pier can handle vessels up to 100 000 dwt.

Arrival information

Vessel Traffic Service

8.426

1 A Vessel Traffic Service Scheme is in operation for the coordination of shipping bound to, or from, Mīnā’ ash Shu‘aybah; N-bound reporting point 22°09′·9N 48°13′·6E and S-bound 22°10′·4N 48°13′·3E. See *Admiralty List of Radio Signals Volume 6 (3).*

Notice of ETA required

8.427

1 ETA should be sent 72 and 36 hours prior to arrival with confirmation at 12 hours; contact port control when within VHF range. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.428

1 Anchorage may be obtained in Outer Harbour Anchorage, centred about 3 miles E of Petroleum Products Pier (8.439), in depths between 18 and 20 m; the holding is good, sand and clay. In the event of congestion vessels may be directed to a particular anchorage berth; see 8.400.

Prohibited anchorage. A restricted area in which anchorage is prohibited extends W from the shore to enclose Mīnā’ ‘abd Allāh Sea Island Terminal; see 8.400.

Submarine pipelines

8.429

1 See 8.401.

Pilotage

8.430

1 Pilotage is compulsory and available day and night; pilot boards in the Outer Anchorage area about 3 miles E of Petroleum Products Pier; pilots for the Petroleum Products Pier board ENE of Mīnā’ ‘abd Allāh Sea Island Terminal, see 8.402 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.431

1 Tugs are available.

Traffic regulations

8.432

1 **Traffic separation scheme.** See 8.404

Harbour

General layout

8.433

1 The main harbour basin, entered from E, is formed by two broad moles providing fifteen inner berths and five outer; a barge harbour is entered from the S side of the main basin. Petroleum Products Pier extends about 5 cables ENE, from the knuckle of the S mole, to a T-headed pier providing four oil loading berths.

Natural conditions

8.434

1 **Tidal streams.** During periods of spring tides a N/S set across the entrance of up to 2 kn may be experienced.

Principal marks

8.435

1 **Major lights:**

Jazīrat Kubbar Light (white framework tower, black bands) (29°04′·3N 48°29′·5E).

Mīnā’ ash Shu‘aybah Control Tower (white tower, red light) (29°02′·6N 48°10′·0E).

Other aids to navigation

8.436

1 **Racons:**

Aḩmadī Light-buoy (28°56′·2N 48°53′·1E).

Jazīrat Kubbar Light (29°04′·3N 48°29′·5E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 8.407)

Entry

8.437

1 From the Outer Harbour anchorage the track initially leads WNW to a position NE of Petroleum Products Pier.

Directional light:

A very narrow sector light (253½°) (29°02′·5N 48°09′·2E) is exhibited from the SW corner of the main basin.

The track continues WSW, on the line of the directional light, to pass NNW of Petroleum Products Pier and between the breakwaters heads into the main basin; lights are exhibited from the NNW end of Petroleum Products Pier and the breakwater heads.

2 **Useful mark:**

Lights are exhibited from the cooling water intake platforms which stand up to 3 cables offshore both N and S of the main basin; lights are exhibited from monitoring towers W of the S platforms.

Basins and berths

Main basin

8.438

1 The main basin can handle vessels up to 200 m in length on a maximum draught of 12 m; the container terminal and Ro-Ro bridge, 120 tonnes capacity, lie along the W quay. A conveyor loading system extends along part of S mole connecting Berths 1 and 2 with the shore SW; a similar system on the N mole connects Berth 6 to the shore. The barge harbour, entered from the SW corner of the main basin, has four alongside berths and is dredged to 6 m (1985); a small boat harbour, entered from the SE corner of the main basin, has three alongside berths.

Petroleum Products Pier

8.439

1 Petroleum Products Pier provides four alongside tanker berths and can handle vessels up to 100 000 dwt; lights are exhibited from mooring dolphins NNW and SSE of the main pier and from its centre. A minimum arrival draught of 3·1 m forward and 4·6 m aft is required at the berth.

A foul area, with a least depth of 15·5 m, lies about 2 cables E of the N end of the pier.

Port services

Repairs

8.440

1 Minor repairs only.

Other facilities

8.441

1 Hospital; deratting exemption certificates only; no oily water reception facilities; garbage reception facilities.

Supplies

8.442

1 Fuel oil; fresh water at some berths and by barge.

Communications

8.443

1 Kuwait International Airport (8.511).

MĪNĀ’ AL AḨMADĪ

General information

Chart 1223

Position

8.444

1 Mīnā’ al Aḩmadī (29°04′N 48°09′E) is situated N of Mīnā’ ash Shu‘aybah (8.415).

Function

8.445

1 Mīnā’ al Aḩmadī is the principal oil loading port for the State of Kuwait and is solely used for the export of crude oil, oil products and gas; its main facilities are owned and operated by the Kuwait National Petroleum Company; the SBMs by the Kuwait National Oil Company.

Topography

8.446

1 The town of Al Aḩmadī (29°05′N 48°04′E) lies about 3 miles inland; oil installations and associated development

occupy the shoreline from Mīnā’ ‘abd Allāh to Mīnā’ al Aḩmadī. Considerable development has taken place along the coast N of Mīnā’ al Aḩmadī and the shoreline is now mostly built up. See 8.342.

Port limits

8.447

1 The port limits extend between 2 and 3 miles seaward.

Approach

8.448

1 North Pier, South Pier and the New Oil Pier may be approached from the Inner end of the Mīnā’ al Aḩmadī TSS (South) (8.407); then from E from their respective pilot boarding positions. After clearing the TSS Mīnā’ al Aḩmadī Sea Island Terminal may be approached from S; for alternative approach see 8.504.

Attention is drawn to the dangerous wreck (position doubtful) (29°05′·1N 48°14′·1E) in the approach to North and South Piers; a wreck, with a least depth over it of 21 m, lies 1¾ miles WSW.

Traffic

8.449

1 In 2004, Mīnā’ al Aḩmadī was visited by 353 vessels with a total of 55 078 491 dwt.

Port Authority

8.450

1 Kuwait Oil Co KSC, PO Box 9758, Marine and Export Operations Dep, 61008 Aḩmadī, Kuwait.

Limiting conditions

Controlling depth

8.451

1 Deep Water Departure Channel (8.470) has a least depth of 27 m.

Deepest and longest berth

8.452

1 SBM berths are moored E of Sea Island Terminal; see 8.471.

Tidal levels

8.453

1 Mīnā’ al Aḩmadī is a standard port; mean spring range about 2·2 m; mean neap range about 0·7 m. See *Admiralty Tide Tables Vol 3.*

Density of water

8.454

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

8.455

1 Mīnā’ al Aḩmadī Sea Island Terminal can accommodate tankers of over 500 000 dwt; see 8.471.

Arrival information

Port operations

8.456

1 Vessels should arrive with sufficient clean ballast for safe manoeuvring under the prevailing weather conditions.

Vessel Traffic Service

8.457

1 See 8.426.

Notice of ETA required

8.458

1 ETA should be sent 72, 48, 24 and 12 hours prior to arrival; contact port control when within VHF range. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.459

1 Mīnā’ al Aḩmadī Special Anchorage, with depths between 24 and 29 m, is centred on about 29°04′N 48°20′E, SSE of Mīnā’ al Aḩmadī Sea Island Terminal; the anchorage is intended for use by deep draught vessels and vessels engaged in tank cleaning, cooling or bunkering operations.

Mīnā’ al Aḩmadī North and South Pier Anchorage, centred on about 29°04′N 48°17′E, has depths between 22 and 27 m, is used by vessels waiting for berths at the piers.

2 Mīnā’ al Aḩmadī SPM Anchorage, centred on about 29°05′N 48°24′E, has depths between 27 and 32 m, is used by vessels waiting for an SPM berth; see 8.400.

Prohibited anchorage. Anchorage is prohibited in an area between between North and South Piers which extends E from the shore to the restricted area (8.464) surrounding Mīnā’ al Aḩmadī Sea Island Terminal; a submarine pipeline, marked by light-buoys (special), lies within these two areas.

Submarine pipelines

8.460

1 A submarine pipeline, marked by light-buoys (special), is laid from the shore to Mīnā’ al Aḩmadī Sea Island Terminal; pipelines also extend from the shore between North Pier and South Pier.

Pilotage

8.461

1 Pilotage is compulsory for all berthing/unberthing and movements within the port limits and restricted areas; on no account is a vessel to pass within 2 miles of North or South Piers without a pilot on board; the pilot boards:

SPM Berths in 29°06′·7N 48°22′·2E.
North Pier in 29°09′·2N 48°11′·7E or 29°11′·7N 48°11′·7E depending on conditions.
South and New Oil Piers in 29°04′·5N 48°12′·5E.

See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.462

1 Tugs are available.

Traffic regulations

8.463

1 **Traffic separation scheme.** See 8.404

Restricted areas

8.464

1 Mīnā’ al Aḩmadī Sea Island Terminal lies within a restricted area in which navigation is only permitted to vessels visiting the terminal.

Anchoring, fishing and navigation, except by vessels manoeuvring with a pilot embarked or by small pleasure vessels whose draught does not exceed 2 m, is prohibited in a restricted area inshore between North and South Piers; light-buoys (special) mark its seaward limits.

2 **Controlled area.** A security area, marked by S1 to S17 light-buoys (special), encloses the Mīnā’ al Aḩmadī terminals; the area has been established to control the movement of fishing vessels and small boats and to prevent the entry of unauthorised craft.

Traffic regulations

8.465

1 A vessel in Deep Water Departure Channel (8.470), drawing 21·3 m or more, if approaching another vessel in circumstances which cause doubt over the deep draught vessels ability to manoeuvre within the channel, should indicate this doubt by sounding five or more short and rapid blasts on the whistle; the deep draught vessel should also display the following signals:

By day – a black cylinder.

By night – four red lights, vertically disposed, 1·8 m apart.

2 A vessel drawing less than 21·3 m should, when able to do so, give way to a vessel showing and sounding the above signals; she should indicate her intention to give way by sounding one short blast followed by one long blast on the whistle.

Following any exchange of sound signals described above, vessels should sound the appropriate sound signal for vessels in sight of one another in accordance with the *International Regulations for Preventing Collisions at Sea.* The display or the sounding of the above local signals does not absolve any vessel from responsibility for taking appropriate action in accordance with the *International Regulations for Preventing Collisions at Sea.*

3 **Prohibited area.** Anchoring and fishing are prohibited within Deep Water Departure Channel (8.470).

Harbour

General layout

8.466

1 Mīnā’ al Aḩmadī is an open roadstead and comprises North Pier, South Pier, New Oil Pier and the Sea Island Terminal SBMs.

Kuwait Oil Company Boat Harbour (29°04′N 48°09′E), is a small harbour entered close SE of the root of South Pier and W of a detached protective breakwater; lights are exhibited from the ends of its breakwater. Al-Fuḩayḩīl Fishing Harbour (29°05′N 48°09′E) and Al-Fuḩayḩīl Marina, close N, are situated between North and South Piers; lights (lateral) are exhibited from their entrances.

Natural conditions

8.467

1 **Tidal streams** in the vicinity of Jazīrat Kubbar (29°04′N 48°29′E) set NW with the in-going stream and SE with the out-going at rates of up to 1½ kn at springs.

Local weather. Mīnā’ al Aḩmadī is subject to sudden fierce squalls; winds of up to 70 kn have been reported. Mooring lines must be attended frequently and extra moorings or cable may be required at short notice.

Principal mark

8.468

1 **Major light:**

Jazīrat Kubbar Light (29°04′·3N 48°29′·5E) (8.435).

Directions for entering harbour

(continued from 8.407)

8.469

1 From a position at the inner end of the NW bound lane of the Mīnā’ al Aḩmadī TSS (South) (8.407), NNE of Qiţ’at ‘Urayfijān (29′00′N 48°16′E), the pilot boarding position for South and New Oil Pier is approached from ESE; the pilot boarding positions for North Pier from SE; and the SPM Berths from SW.

Directions for leaving harbour

Deep Water Departure Channel

8.470

1 Mīnā’ al Aḩmadī Deep Water Departure Channel, with a least depth of 27 m and marked by light-buoys (lateral and cardinal), leads seaward from Mīnā’ al Aḩmadī Sea Island Terminal (29°07′N 48°18′E); it is intended for use by outward-bound deep draught tankers whose freedom to manoeuvre is limited; all other vessels should keep well clear; see 8.465. From a position SW of No 15 Light-buoy (W cardinal) (29°05′·7N 48°21′·4E) the track leads generally ESE, passing:

2 SSW of Jazīrat Kubbar (29°04′N 48°29′E), a sandy islet, 4 m high, overgrown with brushwood, standing on a drying reef; a rocky spit extends about 6 cables NW. A light (8.435) is exhibited from the SW side of the islet; M35 Light-beacon (N cardinal) stands on the NW end of the spit. It is recommended that extra care be taken in the shallow sections of the channel between No 20, No 18 and No 16 Light-buoys (port hand) and the vicinity of No 13 Light-buoy (S cardinal). Thence:

3 SSW of Umm al ‘Aysh (Taylor Rock) (29°02′N 48°35′E), a small coral patch with a least depth of 3·2 m; in fine weather there is no indication of its presence, but in bad weather the sea probably breaks. A light-beacon (white pedestal, black bands on metal tripod) stands on the patch. It is recommended that extra care be taken in the shallow sections of the channel between No 14 and No 8 Light-buoys (lateral), and the vicinity of No 10 Light-buoy (N cardinal). Thence:

4 N of Mudayrah Reef (28°56′N 48°46′E) (8.380); No 2 Light-buoy (port hand), marks the S side of the outer end of the deep water channel close off the NW end of the reef. Thence:

Clear of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) (8.352) continuing ESE to pass between the restricted areas surrounding the Dorra and Hout Oilfields (8.352).

Berths

8.471

1 **Offshore terminal.** Mīnā’ al Aḩmadī Sea Island Terminal is now mostly destroyed and used as a pumping station. SPM Berth 22 is moored 1½ miles E of the main terminal structure (29°07′·0N 48°17′·5E) in depths of about 30 m and can handle tankers up to 500 000 dwt; floating hoses may be encountered up to 2 cables from the berth. SBM Berths 20 and 21 are moored 2¼ miles NE and 3 miles E of the main terminal, respectively, in depths over 28 m; both can handle vessels up to 500 000 dwt. Lights are exhibited from the ends of the main terminal structure and from all berths; a mooring-buoy (lit) is laid about 5 cables SW of the main terminal structure.

2 **New Oil Pier** (29°04′N 48°10′E) is an L-shaped structure extending over 1 mile ENE from the shore; the pier has a total of five numbered berths situated on its outer face and on berthing arms extending from its SSE side; the outer berths are approached through an area dredged to 18 m (2004); N 3 Light-buoy (special) is moored about 2½ cables NNW of the N end of the pier indicating the N extent of the dredged area. Lights are exhibited from the NNW end of the outer arm and from the larger of the two berthing arms extending SSE.

3 **South Pier,** close within New Oil Pier, is a T-headed steel-piled structure connected to the shore WSW; its longer

berthing arm extends NNW. The pier has nine berths and is is over 1200 m long; a conspicuous control tower, 37 m high, stands on the arm connecting the pier to the shore. Six prominent chimneys stand NNW of the root of the pier among refinery storage tanks; lights (metal framework towers) are exhibited from each end of the pier.

4 **Bitumen Pier,** a T-headed pier within South Pier, is used for loading bitumen and extends ENE from the shore about 2 cables N of the root of South Pier, its jetty head it is 100 m long with alongside depths of 6·5 m. Mooring buoys are laid close off each end of the berth; lights, in the shape of a triangles, are exhibited from its ends.

5 **North Pier** (29°07′N 48°09′E), about 3½ miles N of South Pier, is an L-shaped steel-piled structure connected to the shore WSW with a berthing arm extending NNW. The pier is over 700 m long and has four berths with depths alongside its outer face of 18 m, and its inner of 16·7 m; lights are exhibited from dolphins close off the pier ends and from a conspicuous pier control building near its S end. Light-buoy D (E cardinal) is moored between the pier and the shore; a light-buoy (special) is moored about 1¾ miles NNE of the N end of the pier.

Port services

Repairs

8.472

1 Minor engineering repairs; electronic repairs.

Other facilities

8.473

1 Medical and dental facilities; deratting exemption certificates only; divers and underwater hull cleaning service; oily waste reception facilities on North and South Piers only, but discharge is reported slow.

Supplies

8.474

1 Fuel oil available; diesel oil available (except Sea Island Berths); limited fresh water by barge (notice required); stores; provisions.

Communications

8.475

1 Kuwait International Airport (8.511).

Al-Fuḩayḩīl Harbour

8.476

1 Al-Fuḩayḩīl Fishing Boat Harbour (29°05′N 48°08′E) is entered about 1 mile WNW of the N end of South Pier; lights (lateral) are exhibited from the heads of its protective breakwaters. A recommended track (030°–210°), for fishing boats using the harbour, leads between its entrance and S 15 Light-buoy (special), 6 miles NNE.

MĪNĀ’ ASH SHUWAYKH (AL KUWAYT HARBOUR) AND APPROACHES

General information

Charts 3773, 1214

Position

8.477

1 Mīnā’ ash Shuwaykh (Al Kuwayt Harbour) (29°21′N 47°56′E) lies on the N coast of Kuwait and is approached through Khalīj al Kuwayt.

Function

8.478

1 Mīnā’ ash Shuwaykh, the major commercial port for Kuwait, can accommodate all types of vessels. The city of Al Kuwayt, on the S side of Khalīj al Kuwayt, is the capital of the State of Kuwait and an important political centre.

Topography

8.479

1 The N shore of Khalīj al Kuwayt is low and fringed by an extensive mud flat; in its NW part brown hills rise, about 60 and 90 m high, with level summits ending abruptly on their seaward side in cliffs; on its S side there has been been considerably developed. Dawḩat Kāz̧imah is the W part of Khalīj al Kuwayt, W of Ra’s ad Dawḩah (29°23′N 47°51′E); its shores are again low, sandy and covered with scrub.

Port limits

8.480

1 The port limits extend N to include Shuwaykh Channel and the W anchorages.

Approach

8.481

1 Al Kuwayt is approached from SE passing between the restricted areas surrounding Hout and Dorra Oilfields and N of Deep Water Departure Channel (8.470), thence through the Mīnā’ al Aḩmadī Traffic Separation Scheme (North) (8.496). Al Kuwayt Harbour is approached through Khalīj al Kuwayt which is entered between Ra’s al Arḑ (29°21′N 48°06′E) and Ra’s al Ḩimārah, 10 miles NNE.

Traffic

8.482

1 In 2004, the Port of Kuwait was used by 1868 vessels with a total of 46 026 002 dwt.

Port Authority

8.483

1 Kuwait Ports Authority, PO Box 3874, 13039 Safat, Kuwait.

Limiting conditions

Controlling depth

8.484

1 Shuwaykh Channel is dredged to 8·5 m (1998) and the area off the main berthing quays to 10 m (1986), but depths within the port and the approach channel are subject to silting and may be reduced by up to 2 m; contact the port authority for the latest information.

Deepest and longest berth

8.485

1 Deep Water Berth; see 8.507.

Tidal levels

8.486

1 Mean spring range about 2·6 m; mean neap range about 1·2 m. See *Admiralty Tide Tables Vol 3.*

Density of water

8.487

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

8.488

1 The port has handled a vessel of 44 000 dwt on a draught of 9 m.

Arrival information

Port operations

8.489

1 Vessels should only proceed into Mīnā' ash Shuwaykh if instructed and have a pilot embarked; alternatively they should anchor as appropriate. Entry for deep draught vessels is restricted to the period of high water; maximum permitted entry draught into Shuwaykh Channel is 9·6 m.

Vessel Traffic Service

8.490

1 See 8.426.

Notice of ETA required

8.491

1 ETA should be sent 24 hours prior to arrival. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

8.492

1 Anchorage may be obtained as required in the following anchorage areas:

- Anchorage A (29°26′N 47°56′E) reserved for use by the National Fleet.
- Anchorage B (29°26′N 47°58′E) for vessels which have received berthing instructions. Foul ground lies in the NW corner of the anchorage, a light-buoy (isolated danger), is moored close W within Anchorage A.
- 2 Anchorage C (29°26′N 48°01′E) for vessels with cargo to discharge Mīnā' ash Shuwaykh. A wreck, with a least depth of 10·9 m, lies in the W part of the anchorage; a light-buoy (S cardinal) is moored close E.
- Anchorage D (29°26′N 48°05′E) for vessels calling for fresh water, provisions, crew change or any reason other than to discharge cargo.
- Anchorage E (29°25′N 48°07′E), a temporary anchorage area for vessels awaiting entry to Anchorage D.

3 **Prohibited anchorage.** Anchorage is prohibited in the Shuwaykh Channel and within Mīnā' ash Shuwaykh.

Submarine cables and pipelines

8.493

1 The FOG (Fibre Optic Gulf) submarine cable is laid from about 5 miles S of Ra's al Arḑ (29°21′N 48°06′E) to the central part of the N Persian Gulf and thence to the United Arab Emirates. Anchoring and fishing are prohibited within 5 cables of the cable in Kuwaiti waters; see 1.35.

A submarine power cable and water pipeline are laid across the entrance to Khalīj al Kuwayt from close S of Ra's al Arḑ to Ra's al Qiḩḩah, 10 miles ENE; a restricted area, in which anchoring is prohibited, surrounds both cable and pipeline.

Pilotage

8.494

1 Pilotage is compulsory for all vessels over 400 nrt proceeding to Mīnā' ash Shuwaykh; the pilot boards in position 29°25′·6N 47°59′·7E about 1 mile NE of Shuwaykh Channel entrance. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

8.495

1 Tugs are available.

Traffic regulations

8.496

1 **Traffic separation scheme.** The Mīnā' al Aḩmadī Traffic Separation Scheme (North) has been established in the approach to Khalīj al Kuwayt; the scheme passes NE of Mīnā' al Aḩmadī Sea Island Terminal and its restricted area (8.464). The E section of the inbound lane is entered about 10 miles NW of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) and leads WNW then NW for about 15½ miles to an outer precautionary area centred on 29°07′N, 48°26′E; passing NNE of Jazīrat Kubbar (29°04′N 48°29′E), which lies within the separation zone, and SSW of Abū Jezza Flat (8.347). From the outer precautionary area the inbound lane continues WNW for 11½ miles to a second precautionary area centred on 29°13′N 48°13′E; vessels may depart the scheme from the outer precautionary area and follow a track W or SW to the anchorages and pilot boarding positions for Mīnā' 'abd Allāh, Mīnā' ash Shu'aybah and Mīnā' al Aḩmadī.

2 **Outward**. Outbound the route through the TSS leads from the inner precautionary area ESE then SE for 10 miles to the outer precautionary area, passing NNE of Mīnā' al Aḩmadī Sea Island terminal (8.471); it then continues SE, E and ESE to the outer end of the TSS, passing NE of the SPM anchorage area (8.459), SW of Jazīrat Kubbar and N of the Deep Water Departure Channel and Umm al 'Aysh (8.470); see also 8.404.

The scheme is IMO-adopted and Rule 10 of the *International Regulations for Preventing Collisions at Sea (1972)* applies. See *Annual Summary of Admiralty Notices to Mariners.*

Prohibited area

8.497

1 Entry is prohibited to an unnamed basin (29°23′N 47°58′E) entered SW of Dhow Harbour and Al Sharq Waterfront Marina. The marina and Dhow Harbour are approached through separate channels, dredged to 3 m and marked by buoys; lights (lateral) are exhibited from both entrances.

Former mine danger area

8.498

1 The whole area of Khalīj al Kuwayt is a former mine danger area; see 1.7 and 8.345.

Harbour

General layout

8.499

1 Deep Water Berths and Swinging Basin are dredged to 10 m, the NW part of the harbour to 8·5 m; lights are exhibited from the various quays, jetties and dolphins.

Hazards

8.500

1 **Shore lights.** The shore lights of Al Kuwayt sometimes make it difficult to distinguish navigational aids.

Unlit craft. Care is necessary in the approaches and within the harbour as barges and local craft do not always exhibit lights; at night they may not be easily seen.

Ferry service. A ferry service operates from a small harbour entered W of Ra's al Arḑ (29°21′N 48°06′E) across

Ar Riksah to Az Zawr on the W side of Jazīrat Faylakāh (8.347); lights (lateral) are exhibited from the harbour.

Natural conditions

8.501

1 **Flow.** There is usually an in-draught towards the coast in the approaches to Khalīj al Kuwayt and caution is necessary.

Tidal streams. At springs strong tidal streams run off Ra’s al Arḑ (29°21′N 48°06′E) and off the entrance to the port, E of Fasht al Hadibah Light-beacon (29°24′·9N 47°58′·6E); the in-going streams sets ENE and the out-going WSW with rates of up to 2 or 3 kn; within Shuwaykh Channel the streams set along the channel.

2 **Local weather.** The *shamāl* raises a considerable sea in the S part of the bay; a heavy swell gets up quickly making any small boat work very difficult. The *kaus* causes a much greater swell in the harbour than might be expected from just the strength of the wind.

Climatic table. See 1.145 and 1.147.

Principal marks

8.502

1 **Landmark:**

A prominent building (red lights) stands about 3 cables WSW of Ra’s al Arḑ (29°21′N 48°06′E).

Major lights:

Ra’s al Arḑ Light (29°21′·1N 48°06′·0E) (black metal framework tower, white bands; 22 m high).

Three conspicuous slender pointed towers (highest 182 m) (red obstruction lights) close SW of Ra’s ‘Ajūzah (29°23′·5N 48°00′·3E), a low point fringed by a drying rocky flat on the N side of Al Kuwayt; conspicuous radio masts stand SW and SSW. See diagram on Chart 1214.

2 Port Control Tower Light (white tower) (29°21′·5N 47°55′·9E) on the NW side of Mīnā’ ash Shuwaykh is conspicuous; a light is exhibited close SE from the head of the breakwater.

Other aids to navigation

8.503

1 **Racons:**

Aḩmadī Light-buoy (28°56′·2N 48°53′·1E).
Jazīrat Kubbar Light (29°04′N 48°29′E).
Ra’s al Arḑ (29°21′N 48°06′E).

See *Admiralty List of Radio Signals Volume 2.*

Directions for entering harbour

(continued from 8.352)

Approach

8.504

1 From the vicinity of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E) the track initially leads NW to the outer end of the W bound lane of the Mīnā’ al Aḩmadī TSS (North) (8.496), passing:

NE of Mudayrah Reef (28°56′N 48°46′E) (8.380), thence:

SW of a wreck (29°08′N 48°50′E), over which the depth is unknown, lying close N of the 20 m depth contour of Abū Jezza Flat and into the W bound lane of the TSS, thence:

2 NNE of Umm al ‘Aysh (29°02′N 48°35′E) (8.470) and S of the S edge of Abū Jezza Flat, thence:

NNE of Jazīrat Kubbar (29°04′N 48°29′E) (8.470) and into the outer precautionary area (8.496) NW of the island.

The track continues from the outer precautionary area through the NW part of the TSS, passing:

NNE of the restricted area surrounding Mīnā’ al Aḩmadī Sea Island Terminal (29°07′N 48°18′E) (8.471) and the light-buoys (special) marking the controlled area (8.464) enclosing the Mīnā’ al Aḩmadī terminals; and through into the second precautionary area.

3 The track continues, passing:

SSW of M 33 Light-buoy (W cardinal) (29°15′·0N 48°13′·3E) marking a wreck with a least depth of 8·5 m, thence:

ENE of Qiţ’ at al Funayţis (29°14′N 48°07′E), a shoal patch, with a least depth of 0·8 m, lying on the edge of the coastal bank; M34 Light-beacon (N cardinal) stands on the N side of the shoal. Thence:

WSW of M 32 Light-buoy (W cardinal) (29°19′·2N 48°11′·8E) moored on the edge of the 10 m depth contour along the W side of Abū Jezza Flat and W of a wreck with a least depth of 6 m, thence:

4 ENE of Qiţ’ at al Bid’ (29°18′N 48°06′E), a steep-to rock, with a least depth of 2·4 m, lying close off the coastal bank, thence:

Clear of a dangerous wreck (reported 1991) (position approximate) (29°20′N 48°08′E). Al Bid’ Marina is entered about 2 miles WSW of the wreck; lights (lateral) are exhibited from its N entrance. Thence:

NE of Ra’s al Arḑ (29°21′N 48°06′E), a low and sandy point which forms the S entrance to Khalīj al Kuwayt; a *kaus* wind can cause a very heavy sea to break on the point. Ra’s al Arḑ Light (8.502) is exhibited from the point; lights are also exhibited from a small harbour close S of the point. Thence:

5 SW of M14 Light-buoy (W cardinal) (29°24′·2N 48°08′·8E) moored on the NE side of the entrance to Khalīj al Kuwayt, 6½ miles WSW of Ra’s al Qiḩḩah (8.347); a buoy (isolated danger) is moored about 2¾ miles E marking a dangerous wreck. Thence

NE of M13 Light-buoy (N cardinal) (29°22′·5N 48°05′·6E) moored in the S part of Khawr Bū al Wishaysh and N of the outer end of the shallow bank which nearly fills the bay between Ra’s al Arḑ and Ra’s ‘Ajūzah (8.502), 5½ miles WNW, thence:

6 NE of a dangerous wreck, mast visible, (reported 1991) (29°24′·2N 48°02′·2E) lying 1¾ miles ENE of Ra’s ‘Ajūzah within the white sector (180°–290°) of the light-beacon (29°24′·8N 47°59′·7E) standing on the edge of the coastal bank N of Medina Island.

The track then leads W to the pilot boarding position.

Useful marks:

A light-buoy (N cardinal) (28°57′·8N 49°02′·5E) (8.352).

7 No 2 Light-beacon (S cardinal) (29°18′·8N 48°24′·1E) which stands close S of the 5 m depth contour on Abū Jezza Flat, S of Ar Ra’s the SE extremity of Jazīrat Faylakāh (8.347).

Twin prominent buildings (105 m high) (29°09′N 48°08′E) near the coast, S of Al Fintās.

Al Kuwayt Port Control Signal Station (29°23′·5N 47°59′·8E) at the end of a short pier about 4 cables W of Ra’s ‘Ajūzah (8.502); a light is exhibited from the station.

8 Lights (lateral) are exhibited from the entrances to Al-Sharq Waterfront Marina (29°23′N 47°59′E) and Dhow Harbour, close SW, and a smaller basin (entry prohibited) farther SW.

Telecommunications tower (372 m high) (29°22′·1N 47°58′·5E).

Entrance channel

8.505

1 **Al ‘Akāz Leading Lights:**

Front light-beacon (29°22′·5N 47°56′·3E).

Rear light-beacon (808 m farther SW).

From the pilot boarding position the alignment (224½°) of these leading lights leads SW, through Shuwaykh Channel, marked by light-buoys (lateral) and light-beacons; the channel, which leads across the coastal bank, is about 150 m wide increasing to 380 m in the Mīnā’ ash Shuwaykh Basin Approach, passing:

2 NW of the light-beacon (29°24′·8N 47°59′·7E) standing on the edge of the coastal bank N of Medina Island, thence:

Between No 1 and No 2 Light-buoys (port and starboard hand) marking the outer end the dredged channel, thence:

SE of Fasht al Hadibah Light-beacon (29°24′·9N 47°58′·6E) standing ENE of the outer end of Fasht al Hadibah, a shallow bank extending ENE from Ra’s al ‘Akāz. Al ‘Akāz is an extensive drying reef SSW of Ra’s al ‘Akāz on the N and W sides of the port. Thence:

3 NW of Medina Island (29°23′·9N 47°59′·4E), a reclaimed patch of land; a light (white metal tower, black bands; 3 m high) is exhibited from the island. Thence:

ENE of At Tuwaynah (29°22′·7N 47°57′·5E), a small drying bank and into the approach basin, thence:

ESE of the Swinging Basin breakwater head (29°21′·4N 47°56′·0E) from which a light is exhibited and on which stands the port control tower (8.502); and into the main port area.

4 **Useful marks:**

Ra’s al ‘Akāz Light-beacon (29°23′·6N 47°56′·3E) on the NE part of Al ‘Akāz (8.505).

A power station (29°21′·0N 47°56′·5E) with three conspicuous chimneys stands on the SE side of the harbour entrance; a conspicuous flour mill (obstruction lights) stands close SW.

Four conspicuous silos (29°20′·7N 47°55′·4E) on the SE corner of the main harbour basin; a conspicuous square tower (red and white, 37 m high) stands about 5 cables W.

Directions for leaving harbour

Departure

8.506

1 From the inner precautionary area the departure route follows the outbound lane of the Mīnā’ al Aḩmadī TSS (North) (8.496) initially ESE then SE for about 10 miles to the outer precautionary area, passing NNE of Mīnā’ al Aḩmadī Sea Island terminal (8.471). From the outer precautionary area the track continues SE, E and ESE for 18½ miles to the outer end of the TSS, passing NE of the SPM anchorage (8.459), SW of Jazīrat Kubbar and N of the Deep Water Departure Channel and Umm al ‘Aysh (8.470); clearing the end of the outbound lane of the TSS and passing NE of Mudayrah Reef (28°56′N 48°46′E) (8.380) through to the vicinity of Aḩmadī Light-buoy (28°56′·2N 48°53′·1E).

Basins and berths

8.507

1 **Deep Water Berth** is the main cargo quay on the S side of the harbour with seven berths; each can accommodate vessels up to 175 m in length on a maximum draught of 9·6 m; grain elevators stand on Berth 1 and a flour mill is situated close SE.

Cement Berth lies within a small basin close SW of Deep Water Berth, the berth can accommodate vessels up to 200 m in length on a maximum draught of 9·6 m; a similar basin lies NW.

2 **Container Terminal Berths** lie within a basin extending W from the inner end of the main harbour; the berths can accommodate vessels up to 225 m in length on a maximum draught of 9·6 m.

Ro-Ro Berths lie N of the container berths in the NW part of the main harbour.

Shipyard. A shipyard with an adjacent basin and a floating dock lie on the N side of the harbour.

3 **Other berths,** which can accommodate vessels up to 220 m in length on a maximum draught of 8 m, lie on the NW side of the harbour, between the container berths and the shipyard. Mooring dolphins and piers lie in the SE part of the basin approach and the outer part of the S side of the Swinging Basin; lights are exhibited from the various pier heads. Within the main harbour, on the division between the dredged areas, are further mooring dolphins which provide two berths for ships up to 183 m in length on a draught of 8·1 m; lights are exhibited from the dolphins. A small basin, with a least depth of 3·3 m, is entered from the S corner of the main harbour.

Port services

Repairs

8.508

1 Repairs undertaken by the shipyard; floating dock of 14 000 tonnes capacity, synchrolift 2000 tonnes and a slipway.

Other facilities

8.509

1 Hospital; deratting exemption certificates issued.

Supplies

8.510

1 Fuel oil available at Deep Water Berth, other berths by fuel tanker; fresh water available at most berths and by barge and by water tender in the outer anchorages; provisions available.

Communications

8.511

1 Kuwait International Airport is situated about 17 km S of Al Kuwayt.

Harbour regulations

8.512

1 Landing by boat from the anchorages should be at Dhow Harbour (29°23′N 47°59′E), but any personnel landing should carry correct documentation. Pollution regulations are strictly enforced.

Rescue

8.513

1 Rescue vessel with medical facilities available.

Mīnā' ad Dawḩah

General information

8.514

1 **Position and function.** Mīnā' ad Dawḩah (29°23′N 47°48′E) is a small artificial harbour basin used by dhows, barges and coastal vessels, handling mainly timber and vegetables.

Approach and entry. From the vicinity of Ra's 'Ushayriq Light-buoy (29°25′·2N 47°55′·5E) the harbour is approached from E through a fairway, marked by light-buoys (lateral) which leads clear of the dangerous shoals on the S side of the entrance to Dawḩat Kāz̧imah; the harbour is entered E of No 7 Light-buoy (starboard hand) (29°23′·4N 47°47′·9E) passing between outer protective breakwaters.

2 **Port Authority.** Kuwait Ports Authority, PO Box 3874, 13039 Safat Kuwait.

Depths. The 5 m depth contour of Dawḩat Kāz̧imah is foul and should be avoided; several detached dangerous shoals, including Qiţ'atayn 'Ushayriq (29°24′N 47°49′E) and Qiţ'at Abū Ţalḩah, 5 cables WSW, lie off the coastal bank on the S side of the entrance to the bay. A fish farm lies about 2½ miles N of Ra's ad Dawḩah; fish traps may also be encountered up to 1½ miles off-shore.

Tidal levels. Mean spring range about 2·8 m; mean neap range about 1·3 m. See *Admiralty Tide Tables Vol 3.*

3 **Port operations.** Berthing only undertaken during daylight.

ETA should be sent 72 hours prior to arrival to port authority and agent.

Anchorage. Good anchorage may be obtained, sheltered from the *shamāl*, in the outer part of Dawḩat Kāz̧imah, clear of the prohibited area, in depth of about 10 m; less depths lie in the approaches.

Prohibited area. A prohibited area, in which are a number of fish farms, lies about 2½ miles N of Ra's ad Dawḩah; light-beacons (special) mark the corners of the area.

4 **Landmarks:**

A power station complex (29°22′N 47°48′E) with two separate power stations, each with two chimneys, is conspicuous.

Directions

8.515

1 From the vicinity of Ra's 'Ushayriq Light-buoy (29°25′·2N 47°55′·5E) the track leads W, passing (with positions relative to Jazīrat Umm an Naml Light (29°23′·3N 47°52′·3E)):

Clear of the shoal patch (existence doubtful) (2½ miles NE), with a least depth of 3·6 m, lying 5 cables NE of No 1 Light-buoy (port hand). Thence:

2 N of a dangerous rocky shoal (2¼ miles WNW) with a least depth of 0·7 m; No 3 Light-buoy (port hand) is moored close E. A fishing harbour (29°24′N 47°50′E) is situated at the outer end of a causeway close NW of Ra's ad Dawḩah; lights are exhibited from the heads of piers and quays within the harbour. Thence:

NNW of Qiţ'atayn 'Ushayriq (3 miles WNW) a drying reef; No 4 Light-buoy (port hand) is moored about 2 cables NW, thence:

3 NNW of Qiţ'at Abū Ţalḩah (3½ miles W), a dangerous shoal with a least depth of 0·3 m, thence:

E of a rock (3¾ miles W) on the W side of the fairway, with a least depth of 1·1 m; No 7 Light-buoy (starboard hand) is moored close E. Thence:

Between the outer protective breakwaters from which lights (lateral) are exhibited.

4 **Useful marks:**

Jazīrat Umm an Naml M1 Light (red and white tower, 16 m high) (29°23′·3N 47°52′·3E) exhibited from the NE corner of Jazīrat Umm an Naml.

Lights (29°23′·2N 47°47′·5E) are exhibited from the outer corners of the breakwater of a stilling pond used by the power stations.

A short causeway (29°24′N 47°45′E) projects SSW from Ra's Kāz̧imah, a point on the N side of the head of Dawḩat Kāz̧imah; a submarine pipeline extends SE from the causeway to a pump barge.

Basin

8.516

1 There is a least depth of 3·4 m in the main basin area.

Harbour

Al Hishan

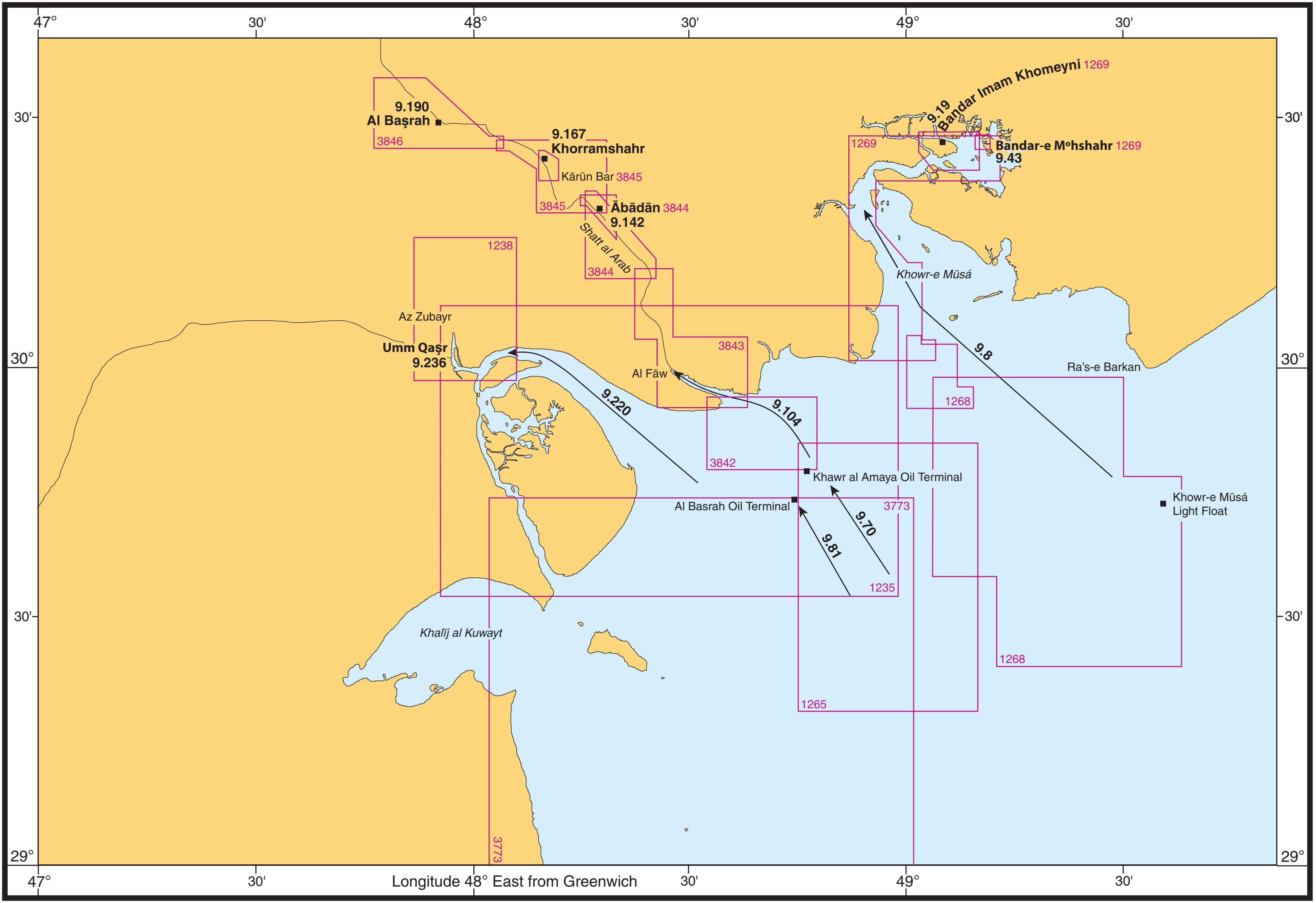
8.517

1 **Description.** Al Hishan, a large bight on the S side of Khalīj al Kuwayt (8.477), is entered between Ra's al 'Akāz (29°24′N 47°56′E) (8.505) and Jazīrat Umm an Naml, a long, low and rocky island about 1 mile E of Ra's ad Dawḩah; a light (8.515) is exhibited from the island. Light-beacons (lateral) mark the channel to the central part of the bight and lead to the vicinity of M5 Light-beacon (special) (29°21′·5N 47°53′·0E); a mooring buoy is laid close WSW of the light-beacon.

NOTES

HYDROGRAPHIC OFFICE

Chapter 9 - head of Persian Gulf - Ra’s-e Barkan to Ra’s al Barshah including Khowr-e Mūsá, Shatt al Arab and Khawr’abd Allāh



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CHAPTER 9

HEAD OF PERSIAN GULF — RA’S-E BARKAN TO RA’S AL BARSHAH INCLUDING KHOWR-E MŪSÁ, SHATT AL ARAB AND KHAWR ‘ABD ALLĀH

GENERAL INFORMATION

Chart 2884

Scope of the chapter

9.1

1 The area covered by this chapter describes the head of Persian Gulf, generally within the 20 m contour, from Ra’s-e Barkan (30°01′N 49°34′E) in Iran to Ra’s al Barshah, 75 miles WSW, in Kuwait; and the Iraq coast between. Also covered are the waterways of Khowr-e Mūsá, Shatt al Arab and Khawr ‘Abd Allāh and their approaches.

The chapter is divided into the following sections:

Khowr-e Mūsá (9.4).
Outer Approaches to Shatt al Arab and Khawr ‘Abd Allāh (9.66).
Shatt al Arab (9.97).
Khawr ‘Abd Allāh (9.216).

2 The major ports described are:

Bandar Imam Khomeynī (30°26′N 49°05′E) (9.19).
Bandar-e Māhshahr (30°27′N 49°10′E) (9.43).
Ābādān (30°20′N 48°17′E) (9.142).
Başrah (30°31′N 47°50′E) (9.190).
Umm Qaşr (30°03′N 47°56′E) (9.236).

And the ports of:

Al Fāw (29°59′N 48°28′E) (9.135).
Khorramshahr (30°26′N 48°10′E) (9.167).
Abū Fulūs (30°27′N 48°02′E) (9.215).
Az Zubayr (30°11′N 47°53′E) (9.263).

3 Oil terminals described are:

Khawr al Amaya Oil Terminal (29°47′N 48°48′E) (9.75).
Al Başrah Oil Terminal (29°41′N 48°49′E) (9.90).

Aids to navigation

9.2

1 Aids to navigation in this area are reported unreliable, missing, unlit or out of position, and subject to change without prior notice. Vessels should navigate with particular caution.

Buoyage

9.3

1 The area of this chapter lies within the IALA Maritime Buoyage System – Region A; mariners are advised that some buoys and beacons may not conform to this system. Buoyage is also reported unreliable and position fixing is difficult due to the lack of other navigational aids.

KHOWR-E MŪSÁ

GENERAL INFORMATION

Chart 2884

Area covered

9.4

1 This section describes the estuary of Khowr-e Mūsá between Ra’s-e Tanub (30°08′N 49°15′E) and Bu Sif, 18 miles WSW.

It is arranged as follows:

Khowr-e Mūsá Light-float to Bandar Imam Khomeynī (9.8).
Bandar Imam Khomeynī (30°26′N 49°05′E) (9.19).
Bandar-e Māhshahr (30°27′N 49°10′E) (9.43).

General remarks

9.5

1 Navigation is restricted by tidal flats, which dry in places, to a comparatively narrow channel near the W shore; banks in the entrance to the estuary are liable to change. The channel, 244 m wide, across The Bar (9.16), leads generally NW from about 15 miles ESE of Bu Sif; within The Bar the fairway is about 1½ miles wide.

Topography

9.6

1 **East-side.** Ra’s-e Barkan (30°01′N 49°34′E) is a very low strip of sand, which nearly covers at high water, on the E side of the approach to Khowr-e Mūsá between Dōhat Deylam (30°06′N 49°56′E) (6.121) and Khàwr-e Qazlān (30°06′N 49°26′E); drying mud flats extend some miles from each side of the point. Inland the country is swampy for many miles. Rūdkhāneh-ye Zohreh flows across the flats a few miles NW of Ra’s-e Barkan; it appears to have several mouths forming a delta, but only one main channel, marked by stakes and a beacon, which is shallow. The river, used by local craft, is very tortuous.

2 Ra’s-e Tanub (30°08′N 49°15′E) is a low point situated in the N part of Fasht ol Mūā, a large area of flats which dry in patches; the coast NW of the point has not been fully surveyed and is nearly all covered at high water. Jazīreh-ye Būneh (30°09′N 49°10′E) is a long low island W of Ra’s-e Tanub and Jazīreh-ye Darā, a small, low and swampy island, lies 3 miles father SW; Khowr-e Vosţá leads NW between the islands through to its junction with Khowr-e Mūsá farther N.

9.7

1 **West-side.** Bu Sif (30°02′N 48°55′E) is the SE extremity of a low sandy tract which forms the W entrance to Khowr-e Mūsá; W of the point the coast, as far as the mouth of Khowr-e Bahmanshīr (30°00′N 48°42′E), is intersected by creeks and liable to flood. Khowr-e Bahmanshīr, an extension of Rūd-e Kārūn, lies E of, and flows parallel to, the Shatt al Arab to which it is connected by Haffār Channel (9.130) forming the island of Jazīreh-ye Ābādān. Khowr-e Soleyk Baḩrī is entered close W of Bu Sif and Khowr-e Kovayrīn about 9 miles farther W.

KHOWR-E MŪSÁ LIGHT-FLOAT TO BANDAR IMAM KHOMEYNĪ

General information

Charts 2884, 1268, 1269

Route

9.8

1 From the vicinity of Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E) the route leads NW for about 25 miles to the pilot boarding position in the vicinity of No 12 Light-buoy (29°53′·4N 49°12′·6E); it continues NW, following the buoyed channel over The Bar, then N through Khowr-e Mūsá.

Depths

9.9

1 Depths in the approaches to Khowr-e Mūsá are liable to change and may be 5 m less than charted.

Hazard

9.10

1 When the tidal streams are strong the most difficult parts of Khowr-e Mūsá to navigate are reported to be at its junction with Khowr-e Vosţá (30°23′N 48°55′E) and the bend of the river 1½ miles N; see 9.13.

Pilotage

9.11

1 See 9.32.

Restricted area

9.12

1 Anchoring is prohibited in the restricted area surrounding the Nowrouz Oilfield (29°30′N 49°25′E) in which are numerous production platforms and other installations, generally exhibiting Mo(U) lights and sounding fog signals. Unlit structures and submerged obstructions, sometimes marked by buoys, also exist in the area.

Anchoring is prohibited in an area on either side of the submarine pipeline, laid ENE, connecting the oilfield with the Iranian mainland and Barkan Oil Loading Terminal (6.113); see 1.17.

Natural conditions

9.13

1 **Tidal streams** in the approaches to Khowr-e Mūsá set NE and SW, turning at about the time of high and low water. In the vicinity of Qassār Bin Siswān (30°12′N 48°58′E), and N of the junction of the channel with Khowr-e Vosţá (30°23′N 48°55′E), rates of more than 4½ kn may be encountered with both the in-going and out-going streams.

Overfalls. Eddies and tide-rips occur over Qassār Bin Siswān.

Other aids to navigation

9.14

1 **Racons:**

Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E).
No 9 Light-buoy (29°54′·9N 49°09′·6E).

See *Admiralty List of Radio Signals Volume 2.*

Directions

(continued from 6.112)

Outer approach

9.15

1 From the vicinity of Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E), the track leads NW through the outer approach channel, marked by light-buoys (lateral), passing:

NE of an obstruction (position approximate) (29°39′·7N 49°30′·5E) with a least depth of 13·8 m, thence:

NE of No 2 Light-float (port hand) (29°40′·4N 49°29′·4E) moored at the outer end of the buoyed fairway, thence:

2 SW of a shoal patch (29°43′·5N 49°27′·1E) with a least depth of 10 m, thence:

NE of a tide gauge (metal platform; 7 m in height) (29°42′·5N 49°23′·8E) standing close S of a shoal with a least depth of 8·5 m; No 4 Light-buoy (port hand) is moored about 1½ miles WNW of the gauge. Thence:

SW of a dangerous wreck (position approximate) (29°47′·8N 49°21′·7E) lying on a detached shoal with a least depth of 7·3 m, thence:

3 SW of a dangerous wreck (position approximate) (29°49′·2N 49°19′·8E) and the stranded wreck close W; a light-buoy (isolated danger) is moored close SW. Thence:

SW of a stranded wreck (position approximate) (29°51′·9N 49°19′·0E), thence:

NE of a dangerous wreck (masts visible) (position approximate) (29°50′·0N 49°14′·8E); a light-buoy (E cardinal) is moored close N and a similar buoy 9 cables ENE. Thence:

Through to the pilot boarding position in the vicinity of No 12 Light-buoy (29°53′·4N 49°12′·6E).

The Bar

9.16

1 From the inner end of the approach channel the track continues, generally NW, through the narrow dredged channel over The Bar, marked by light-buoys and light-beacons (lateral), passing:

NNE of a dangerous wreck (position approximate) (29°54′·0N 49°10′·5E); a light-buoy (E cardinal) is moored about 4 cables ESE. Thence:

NE of a stranded wreck (position approximate) (29°54′·0N 49°09′·0E) and between No 9 and No 14 Light-buoys (port and starboard hand) marking the outer end of the dredged channel. Thence:

2 SW of a stranded wreck (position approximate) (29°57′·3N 49°08′·9E); a light-buoy (E cardinal) is moored close SE. Thence:

NE of stranded wrecks (positions approximate) (29°54′·5N 49°06′·4E) lying on the edge of a shoal bank SW of the channel; a light-buoy (E cardinal) is moored 2 cables NE. Thence:

NE of a stranded wreck (position approximate) (29°55′·9N 49°06′·5E) lying about 6 cables S of No 16 Light-buoy (port hand), thence:

3 NE of a stranded wreck (position approximate) (29°56′·5E, 49°05′·6E); a light-buoy (isolated danger) is moored 2 cables WSW. Another stranded wreck lies 4½ cables W of the buoy. Thence:

NE of two stranded wrecks (positions approximate) (29°59′·2N 49°03′·2E) lying in the vicinity of a detached shoal, with a least depth of 4·6 m, close W of No 22 Light-beacon. A shoal, with a least depth of 4·9 m, lies about 1½ cables SSE of the beacon. Thence:

4 WSW of a beacon (2·4 m in height) (30°00′·3N 49°03′·0E) standing on the shoal bank NE of No 17 Light-beacon. A similar beacon (3 m in height) stands 6 cables NW; a drying stump lies about 1½ cables SE of the second beacon. Thence:

ENE of a tide gauge structure (framework structure on piles, 21 m in height; disused) (30°00′·2N 49°02′·2E), thence:

Between No 30 and No 23 Light-beacons (30°03′·2N 49°00′·6E) marking the inner end of Bar Channel, thence:

Through into the S end of Khowr-e Mūsá.

5 **Useful mark:**

The pilot platform (white structure; red light) (29°56′N 49°11′E); a stranded wreck (position approximate) lies 2½ miles E of the platform.

Khowr-e Mūsá

9.17

1 From the inner end of the channel over The Bar the track continues generally N through a fairway marked by light-buoys and light-beacons (lateral), passing:

E of a shoal (30°04′·7N, 48°59′·4E) with a least depth over it of 9·4 m; thence:

E of the entrance to Khowr-e Moveyleḩeh (30°06′N 48°55′E) which enters Khowr-e Mūsá W of No 32 Light-beacon; a pile beacon (drying 2·4 m) stands close WNW of the light-beacon and a tide indicator (ruins) stands 7 cables NW. Thence:

2 W of a drying coral reef (30°10′N 48°59′E) lying on the E side of the channel; the stump of a pile beacon stands on the edge of the shoal bank close S of the reef. Thence:

WSW of Qassār Bin Siswān (30°12′·2N 48°57′·9E), a dangerous rock on a shoal bank lying in mid-channel; No 25 Light-beacon stands close S of the rock. See 9.13. Thence:

WSW of Jazīreh-ye Qabr-e Nākhodā (30°18′N 48°55′E), a low islet of sand and shell on the mud flat on the E side of the channel; above the islet both the E and S banks of Khowr-e Mūsá are well defined and are always above water. Thence:

3 E of the entrance to Khowr-e Qanāqeh (30°19′N 48°52′E) which enters the W side of Khowr-e Mūsá, W of No 27 Light-beacon (starboard hand); within its entrance the banks are steep-to, but flats lie on either side of the mouth. Thence:

NW of the entrance to Khowr-e Vosţá (30°23′N 48°55′E) which enters the E side of Khowr-e Mūsá, E of No 40 Light-beacon (port hand); the inlet is unexamined and dangerous. See 9.13. Thence:

NW of the entrance to Khowr-e Khanam (30°23′·6N 49°02′·4E), thence:

4 ESE of the entrance to Khowr-e Mo ‘āvīyeh (30°25′·0N 49°02′·3E) and through to Bandar Imam Khomeynī, or the pilot boarding position (9.54) for the Port of Bandar-e Māhshahr.

(Directions for Bandar-e Māhshahr continue at 9.61)

Anchorages

9.18

1 **Outer Bar Anchorage.** Anchorage may be obtained in depths of about 18 m in a position S the pilot platform (29°56′N 49°11′E) and N of the outer end of Bar Channel; anchorage may also be obtained about 1½ miles SSE of the outer end of the channel; note the dangerous wreck (position approximate) (29°54′·0N 49°10′·5E).

Khowr-e Mūsá Anchorages. Anchorage may be obtained in depths of 18 to 20 m about 1¾ miles S of Jazīreh-ye Qabr-e Nākhodā (30°18′N 48°55′E). Anchorage may also be obtained between No 33 Light-beacon (30°23′·9N 48°57′·7E) and No 44 Light-beacon, 2½ miles E, in depths of about 40 m.

BANDAR IMAM KHOMEYNĪ

General information

Chart 1269 plan of Bandar Imam Khomeynī and approaches to Bandar-e Māhshahr

Position

9.19

1 Bandar Imam Khomeynī (30°26′N 49°05′E) is a river port situated on a reclaimed island on the N side of Khowr-e Mūsá, about 45 miles above the outer end of The Bar Channel.

Function

9.20

1 After considerable development Bandar Imam Khomeynī is now the largest and most modern port of Iran; it is also the terminus of the trans-Iranian railway.

Port limits

9.21

1 The port limits extend from Khowr-e Mūsá Light-float (29°37′·1N 49°34′·1E) to the inner anchorage (9.18).

Approach and entry

9.22

1 The port is approached from the vicinity of Khowr-e Mūsá Light-float and entered through Khowr-e Mūsá.

Traffic

9.23

1 In 2004 the port was used by 717 vessels with a total of 22 441 748 dwt.

Port Authority

9.24

1 Ports and Shipping Organisation, PO Box 79345, Bandar Chāh Bahār, Iran.

Limiting conditions

Controlling depth

9.25

1 The channel over The Bar is dredged to 12·2 m (1992).

Deepest and longest berth

9.26

1 The port has a continuous line of more than 5 km of general cargo quays with alongside depths of between 9 and 12 m; the ore terminal has an alongside depth of 15 m. See 9.38.

Tidal levels

9.27

1 Mean spring range over The Bar about 2·5 m; mean neap range about 1·1 m. See *Admiralty Tide Tables Vol 3.*

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Home Contents Index

Density of water

9.28

1 The density of the water is 1·029 g/cm^3.

Maximum size of vessel handled

9.29

1 Vessels of 260 m in length on a draught of 13 m can be handled; vessels of 9·8 m or less in draught can enter day or night at any state of the tide.

Arrival information

Notice of ETA required

9.30

1 ETA should be sent at least 48 hours prior to arrival at Khowr-e Mūsá pilot boarding position; 72 hours before if proceeding to the Fertilizer Complex Wharf. A vessel should report its position to the Harbour Master 24 hours before arrival at the entrance to Khowr-e Mūsá.

See *Admiralty List of Radio Signals Volume 6 (3).*

Inner anchorage

9.31

1 Anchorage may be obtained in the channel SW of the port area and in the entrance to Khowr-e Maramus (30°24′N 49°04′E). The stream runs strongly in this vicinity; a wreck, with a least depth of 11·6 m, lies in the entrance to Khowr-e Maramus. See 9.18.

Pilotage

9.32

1 Pilotage is compulsory for all vessels. The pilot boards in the vicinity of No 12 Light-buoy (29°53′·4N 49°12′·6E); during adverse weather the pilot vessel may be stationed above Bar Channel.

See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

9.33

1 Tugs are available.

Quarantine

9.34

1 Pratique normally granted on arrival.

Harbour

General layout

9.35

1 The main port area lies on the W side of Bandar Imam Khomeynī within Khowr-e Dowraq. Western and Eastern Jetties extend S into Khowr-e Māhshahr, E of the main berthing area; the Ore Terminal lies between the two jetties. The Grain Terminal Mole extends SSE from E of Eastern Jetty and the entrance to Barge Harbour; the Fertilizer Complex Wharf lies close E.

Khowr-e Jafari enters Khowr-e Dowraq off the NW corner of Bandar Imam Khomeynī and leads to the self contained port area operated by the Gulf Agency Company (GAC).

Natural conditions

9.36

1 **Tidal streams.** See 9.13.

Local weather. The *shamāl* blows from NW during the summer months starting at about 0900 daily and dying at about sunset. Fog may be experienced during the months of October and November. Rainfall in the winter months is usually associated with S gales. The port area of Bandar Imam Khomeynī is subject to flooding during heavy rains.

Directions for entering harbour

9.37

1 See 9.15.

Basins and berths

Alongside berths

9.38

1 There are twenty four numbered berths within Khowr-e Dowraq; Berths 13–15 have alongside depths of 13 m. Berths 1–10 lie in Khowr-e Māhshahr along the W end of the S part of Bandar Imam Khomeynī; Berths 4–6 on Western Jetty have alongside depths of 11·5 m; a Ro-Ro terminal is situated close E of Berth 7. The Grain Terminal Mole, E of Eastern Jetty, has alongside depths of 13 m on its E side and the Fertilizer Wharf, close E, has alongside depths of between 13·4 m and 14 m. Two jetties of a petrochemical terminal, the E of which is marked at its W end by lights, extend from the SE corner of Bandar Imam Khomeynī; they can handle vessels of 25 000 dwt. Mooring buoys are laid between the Fertilizer Wharf and the petrochemical terminal.

2 **Gulf Agency Company** (GAC) Terminal is a self-contained port area with alongside depths of 7 m (1993) which is normally used by barges, but Ro-Ro vessels can be accommodated; the terminal has its own customs officials.

Port services

Repairs

9.39

1 A slipway of 1500 tonnes capacity, jetty and repair shops lie close S of Barge Harbour, but only minor repairs can be undertaken.

Other facilities

9.40

1 Hospital; deratting exemption certificates issued; daily garbage disposal facilities for alongside berths, three times weekly at anchorage.

Supplies

9.41

1 Fuel oil available at Bandar-e Māhshahr; diesel oil by barge (48 hours notice); fresh water available in quantities of 200 tonnes by barge (24 hours notice), but vessels advised to arrive with adequate supplies; stores in limited quantities.

Communications

9.42

1 Airport at Ābādān.

BANDAR-E MĀHSHAHR

General information

Chart 1269 plan of Bandar-e Māhshahr

Position and function

9.43

1 The port of Bandar-e Māhshahr (38°28′N 49°11′E) is an oil export port of the National Iranian Oil Company situated a few miles ENE of Bandar Imam Khomeynī.

Port limits

9.44

1 The outer port limit is a line across the channel SE from No 4 Light-buoy (30°26′·7N 49°09′·8E).

Approach and entry

9.45

1 The port is approached through Khowr-e Mūsá and entered through Khowr-e Māhshahr, a continuation of Khowr-e Mūsá NNE.

Traffic

9.46

1 In 2004, the port was used by 205 vessels with a total of 10 658 957 dwt.

Port Authority

9.47

1 Bandar-e Māhshahr Port Authority, National Iranian Oil Company, Port of Māhshahr, Māhshahr, Iran.

Limiting conditions

Controlling depth

9.48

1 See 9.25.

Deepest and longest berth

9.49

1 Oil Berth No 2; see 9.60.

Tidal levels

9.50

1 Mean spring range about 3·9 m; mean neap range about 2·3 m. See *Admiralty Tide Tables Vol 3* and 9.27.

Density of water

9.51

1 Density of water is 1·030 g/cm^3.

Maximum size of vessel handled

9.52

1 Tankers of 225 m in length can berth alongside; up to 238 m under certain conditions.

Local weather and sea state

9.53

1 See 9.36.

Arrival information

Port operations

9.54

1 Vessels berthed starboard side-to with the in-going stream and port side-to with the out-going.

Notice of ETA required

9.55

1 ETA should be sent 24 hours prior to arrival at Khowr-e Mūsá pilot boarding position and again when pilot is embarked to advise ETA at the port. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

9.56

1 See 9.31.

Pilotage

9.57

1 Pilotage is compulsory for all vessels; pilot boards in Bandar Imam Khomeynī Anchorage. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

9.58

1 Tugs available and use compulsory.

Quarantine

9.59

1 Vessels bound for Bandar-e Māhshahr should anchor off Bandar Imam Khomeynī to obtain pratique.

Harbour

General layout

9.60

1 There are six numbered T-headed jetties, with inshore mooring dolphins, on the NW side of Khowr-e Māhshahr; alongside charted depths between 11 and 12·2 m. Oil Berth No 2 is 238 m in length and the longest.

A tug jetty, E of No 1 Tanker Berth, is also used for the transhipment of oil products packages to tankers berthed alongside.

Directions for entering harbour

Chart 1269 plan of Bandar Imam Khomeynī and approaches to Bandar-e Māhshahr and plan of Bandar-e Māhshahr (continued from 9.17)

9.61

1 From the Bandar-e Māhshahr pilot boarding position the channel through Khowr-e Māhshahr, marked by light-beacons (lateral), is wide, deep and clear. It initially leads E, passing (with reference to Zangi Light-beacon (30°25′·8N 49°07′·3E)):

S of the entrance to Khowr-e Dowraq (3¼ miles W), thence:

N of the wreck (3 miles WSW), with a least depth of 11·6 m, lying in the entrance to Khowr-e Maramus, thence:

2 S of the S side of Bandar Imam Khomeynī, thence:

NNW of Light-beacons 1, 3 and 5, marking the N edge of shoal water SE of Zangi Light-beacon, and:

SSE of Zangi Light-beacon (port hand) standing on the E side of the entrance to Khowr-e Zangī-ye Kūchak; a stump (drying 4·7 m) stands on the edge of the bank on the N side of the channel, 8 cables NE of the light-beacon. Thence:

3 SSE of Abdollāh Light-beacon (1¼ miles ENE) standing on the E side of the entrance to Khowr-e Aẖmadī. Khowr-e ‘Abdollāh also enters the N side of the channel close E of the light-beacon; a stump (drying 4·8 m) stands on the edge of the drying flats E of its entrance. A similar stump (drying 4·9 m) stands on the edge of the flats on the opposite side of the channel.

The channel, marked by light-beacons, continues ENE then NNE to the terminal.

4 **Khowr-e Māhshahr Leading Lights:**

Outer Light-beacon (front) (30°27′·9N 49°11′·2E) standing on the outer end of a spit at the bifurcation of the channel, E of the main terminal berths.

Inner Light-beacon (rear) (457 m WSW).

The alignment (056½°) of these light-beacons leads through the fairway SE of the terminal berths.

Useful mark:

Māhshahr Light-beacon (30°26′·7N 49°10′·1E).

Port services

Repairs

9.62

1 No repair facilities.

Other facilities

9.63

1 Limited medical facilities.

Supplies

9.64

1 Fuel oil and fresh water available at all jetties; fresh provisions in limited quantities.

Communications

9.65

1 Airport at Ābādān.

OUTER APPROACHES TO SHATT AL ARAB AND KHAWR ‘ABD ALLĀH

GENERAL INFORMATION

Chart 2884

Area covered

9.66

1 This section describes the outer approaches to Shatt al Arab and Khawr ‘Abd Allāh.

It is arranged as follows:

Khawr al Amaya and Khawr al Amaya Oil Terminal (9.70).

Khawr al Kafka and Al Başrah Oil Terminal (9.81).

Depths

9.67

1 Depths in the approaches to the Shatt al Arab are irregular with long narrow shoals lying between deep scoured channels. A Rapid Environmental Assessment (2003) has been conducted over most of the area with the intention of locating unknown dangers, the nature of this survey means that previously charted shoals could not be disproved; they are still included.

Mine danger areas

9.68

1 Mine danger areas lie W and SW of Khawr al Amaya Oil Terminal (29°47′N 48°48′E), close W of Al Başrah Oil Terminal (29°41′N 48°49′E) and S of Athan Shoal (29°44′N 48°35′E). Mariners are warned that no swept routes (2004) have been established through these areas.

2 **Former mined area.** A former mined area fills a large area in the NW part of the head of Persian Gulf from Ra’s Bard Ḩalq (28°30′N 48°30′E) (8.283) to Ra’s al Barshah (29°35′N 48°12′E), extending 60 miles offshore but clear of Ra’s al Khafjī TSS (8.328). This area lies across the outer parts of both Khawr al Amaya and Khawr al Kafka; mines may still present a hazard. Anchoring, fishing or seabed operations are not recommended anywhere within this area; when anchoring is necessary it should only be undertaken within designated anchorages as directed by the local authority. Additionally drifting mines may be encountered anywhere within this region. See 1.7, 9.218 and *Annual Summary of Admiralty Notice to Mariners No 6.*

Maritime Security Force

9.69

1 At present (2005) all vessels bound for the Iraqi ports of Umm Qaşr (9.236), Az Zubayr (9.263), Al Başrah Oil Terminal (9.90) or Khawr al Amaya Oil Terminal (9.75) are subject to query and may be boarded for inspection. Vessels bound for, or departing from, Iraqi ports and terminals must pass within 5 miles of the Maritime Security Force (MSF) checkpoint (29°35′N 48°53′E), about 7 miles SE of Al Başrah Oil Terminal. At least 72 hours prior to arrival, details of the vessel, crew, cargo, stowage plan, agent and ETA should be sent to the Maritime Security Force (MSF) Coordinator.

2 When within 5 miles of the checkpoint approaching vessels should contact the MSF Commander on VHF Channel 16. All cargo must be accessible for inspection at sea. Vessels will not be permitted to proceed from the checkpoint until cleared by the MSF Commander.

See *Admiralty List of Radio Signals Volume 6 (3).*

KHAWR AL AMAYA AND KHAWR AL AMAYA OIL TERMINAL

General information

Chart 1265

Route

9.70

1 Khawr al Amaya, one of the principal deep-water approach channels to Shatt al Arab, leads NW for 29 miles from the vicinity of FW Light-buoy (S cardinal) (29°24′·5N 49°08′·8E) to Khawr al Amaya Oil Terminal (29°47′N 48°48′E).

Caution

9.71

1 The channel at present (2005) is unmarked; mariners are advised to use extreme caution in this area.

Traffic regulations

9.72

1 **Prohibited anchorage.** Cargo vessels are prohibited from anchoring W of a line, shown on the chart, between the N end of the temporary anchorage area (9.80) and the restricted area (9.77) surrounding Khawr al Amaya Oil Terminal.

Natural conditions

9.73

1 **Tidal streams** in Khawr al Amaya attain rates between 1 and 2 kn, setting NW with the in-going stream and SE with the out-going; cross sets rarely exceed ¾ kn. The streams continue to run after the times of high and low water for about 45 minutes at springs and 25 minutes at neaps, being followed by a period of slack water lasting about 20 minutes.

High water at Khawr al Amaya Oil Terminal occurs about 30 minutes before high water at Shatt al Arab outer bar, but this interval may be affected by meteorological or spate conditions.

Directions

9.74

1 Khawr al Amaya is primarily intended for use by deep-draught tankers, but is unmarked; a wreck (29°22·′6N 49°07·′6E) with a swept depth of 16·6 m, lies S of its outer end. From the vicinity of FW Light-buoy (S cardinal) (reported missing 2003) (29°24′·5N 49°08′·8E) the track leads initially NW, then NNW, passing:

WSW of a temporary anchorage area (29°38′N 48°55′E) (9.80), thence:

ENE of a dangerous wreck (position approximate) (29°39′·0N 48°51′·9E), thence

2 WSW of a shoal (29°42′·2N 48°51′·7E) with a least depth of 10 m, thence:

ENE of a shoal (29°42′·6N 48°48′·8E) with a least depth of 9·1 m, thence:

WSW of an obstruction (29°44′·2N 48°50′·4E) with a safe clearance depth of 8 m; a shoal (position approximate), with a least depth of 10 m, lies 4 cables NNE. Thence:

WSW of a shoal (29°45′·8N 48°49′·9E) with a least depth of 8·6 m (position approximate), thence:

3 Through to Khawr al Amaya Oil Terminal (29°47′N 48°48′E).

Useful marks:

Al Başrah Oil Terminal (29°41′N 48°49′E) (9.90).

A production platform (reported 1996) (29°48′·5N 48°45′·7E); a spoil light-buoy (black and yellow can) marks a spoil ground close S of the platform.

Khawr al Amaya Oil Terminal

Charts 1265, 1235

General information

9.75

1 **Position and function.** Khawr al Amaya Oil Terminal (29°47′N 48°48′E) lies at the head of Khawr al Amaya (9.70) about 13½ miles SE of the entrance to the Shatt al Arab. It is a deep water terminal and one of the principal crude oil export facilities for S Iraq.

Approach. The terminal may be approached through Khawr al Amaya, but the route is unmarked; the route through Khawr al Kafka (9.81) is marked.

Traffic. In 2004, the port was used by 23 vessels with a total of 3 285 284 dwt.

2 **Port Authority.** General Company for Ports of Iraq, Basrah Makil, Iraq.

Limiting conditions

9.76

1 **Controlling depth.** Depths of over 20 m can be carried through Khawr al Amaya to the terminal.

Deepest and longest berth. Total berthing length of 952 m with alongside depths of between 17 and 22 m.

Tidal levels. See 9.106 and *Admiralty Tide Tables Vol 3*

Density of water is 1·025 g/cm^3.

Maximum size of vessel handled. The terminal can handle vessels of up to 330 000 dwt on a maximum draught of 17 m.

Arrival information

9.77

1 **Port operations.** See Maritime Security Force (MSF) 9.69.

Outer anchorages. See 9.80.

Restricted area. Anchoring is prohibited in a circular area of 1½ miles radius which surrounds the terminal and extends SW, then WNW, over an area of submarine pipelines; see 1.17 and 9.223.

Security Zone. A security zone extends 2000 m in all directions from the outer edge of the terminal structure. Only tankers and support vessels authorised by the terminal operator or Coalition Maritime Security Forces are allowed to enter the exclusion zone. Additionally warning zones extend 3000 m in all directions from the outer edge of the terminal structure. Vessels are advised to remain clear of the warning zones for all but essential transits. If transit requires entry into the warning zone vessels are advised to contact the Coalition Maritime Security Forces on VHF channel 16.

Terminal

9.78

1 **General layout.** The terminal, which comprises three main interconnected island structures and platforms, has two berths operational (2004). The NW part has a helicopter deck, the central is the main berthing area and administration centre and the SE is used for living quarters; lights are exhibited from the terminal structures. An obstruction, with a swept depth of 9·1 m, lies 1 mile NNW of the terminal.

2 **Tidal stream.** In the vicinity of the terminal the streams are rotary and rarely exceed 2 kn; at their maximum they generally parallel the berthing faces, but at other times cross sets of about ¾ kn may be experienced.

Directions

9.79

1 See 9.74.

Anchorage

9.80

1 A temporary anchorage (29°38′N 48°55′E) with depths of between 12 and 24 m has been established on the NE side of Khawr al Amaya.

Caution. Due to present security threats (2005) the use of waiting anchorages is not recommended; tankers should schedule their arrival to the availability of a loading berth.

Prohibited anchorage. See 9.72.

KHAWR AL KAFKA AND AL BAŞRAH (AL BAKR) OIL TERMINAL

General information

Chart 1265

Route

9.81

1 Khawr al Kafka (29°36′N 48°52′E) is a similar, but marked, deep-water channel lying parallel to, and close SW of, Khawr al Amaya (9.70). The channel, primarily intended for use by deep-draught tankers, leads NNW from the vicinity of No 1 Light-buoy (29°21′·0N 49°00′·7E) to Al Başrah Oil Terminal (29°41′N 48°49′E). This route may also used by vessels bound for Umm Qaşr (9.236).

Depths

9.82

1 Depths of less than 20 m lie at the outer end of Khawr al Kafka and within the channel; see 9.67.

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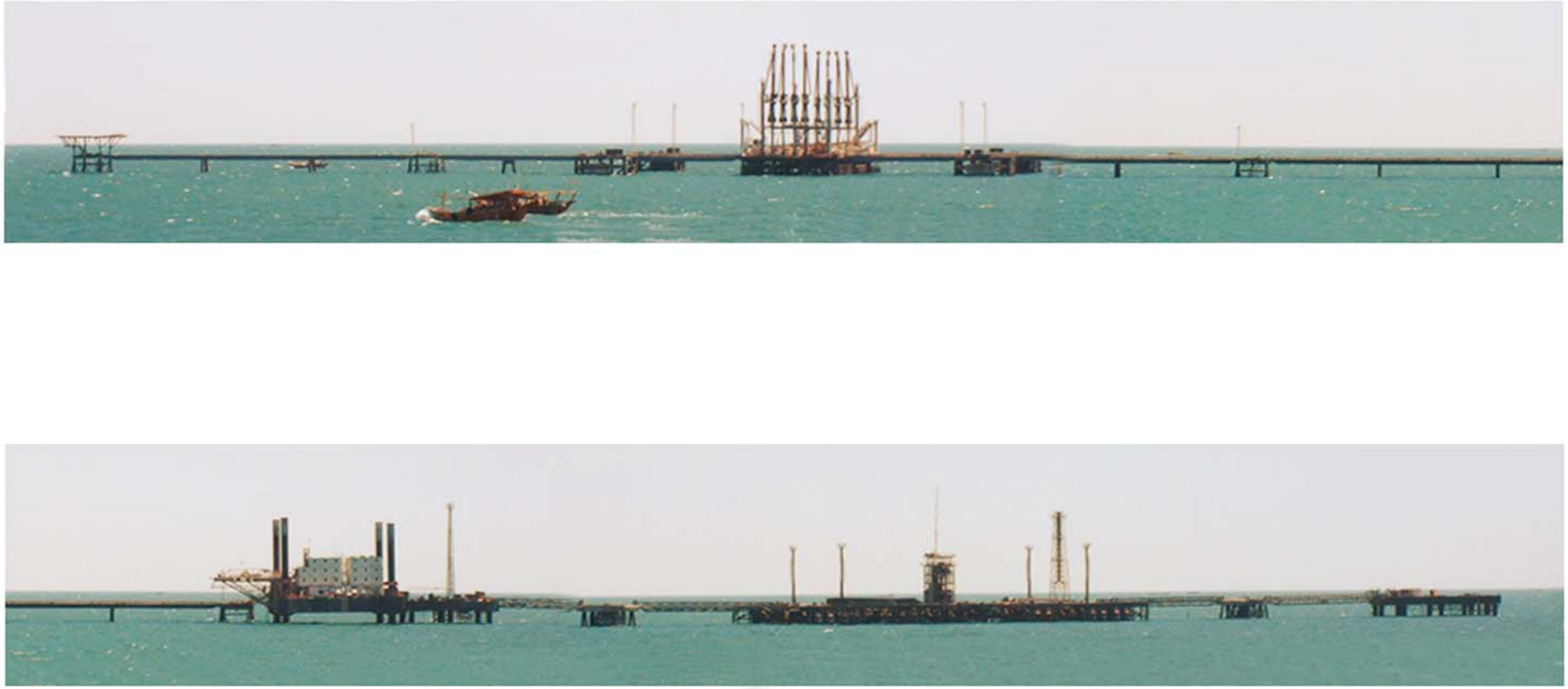


Kwawr al Amaya Oil Terminal (9.75)

(Original dated 2003)

(Photograph – Crown Copyright)

Traffic regulations

9.83

1 When within Iraqi territorial waters all vessels should listen for instructions on VHF Ch 16 or 461·5 kHz.

See *Admiralty List of Radio Signals Volume 6 (3).*

Deep draught tankers. All vessels using Khawr al Kafka should keep well clear of deep draught tankers navigating within the fairway.

Restricted area. See 9.77.

Prohibited anchorage. See 9.72.

Submarine pipelines

9.84

1 See 9.223.

Natural conditions

9.85

1 **Tidal streams.** Within Khawr al Kafka, in the vicinity of 29°39′N 48°50′E, the tidal streams attain a maximum rate of 1 kn with the in-going stream and 1¼ kn with the out-going; streams turn at about the times of high and low water.

Former mined area

9.86

1 See 9.68.

Directions

(continued from 2.27)

9.87

1 From a position S of FW Light-buoy (N cardinal) (reported missing 2003) (29°20′·6N 49°02′·5E), the channel, marked by buoys and light-buoys, leads NNW for 25 miles to Al Başrah Oil Terminal (9.90), passing:

WSW of Deep Water Anchorage A (29°25′N 48°58′E) (9.96), and:

ENE of shoal patches (29°24′N, 48°56′E) with depths over them of less than 10 m, thence:

2 E of a wreck (29°29′N 48°54′E), with a swept depth over it of 12·9 m, lying near the edge of the 20 m contour; a shoal depth of 19·2 m, marked by a buoy (green can), lies 1½ miles in the fairway E of the wreck. Thence:

WSW of Deep Water Anchorage B (29°35′N 48°54′E) (9.96), and:

ENE of two wrecks (26°36′·2N 48°50′·8E), with swept depths over them of 10·1 and 13·4 m, lying near the 20 m depth contour. Thence:

3 ENE of a wreck (29°38′·2N 48°50′·2E) with a swept depth over it of 20 m, No 14 buoy (port hand) is moored close N. Palinurus Shoal (29°37′N 48°48′E), with a least depth of 5·4 m, and other shoal patches lie WSW of the channel in this vicinity. Thence:

WSW of a hazardous wreck (29°39′·5N 48°50′·5E) parts of which are visible and reported radar conspicuous; a buoy (special) is moored off its SW side. This wreck is considered particularly hazardous and a wide berth is recommended. A dangerous wreck (position approximate) lies about 1½ miles ESE. Thence:

4 Through to Al Başrah Terminal or the pilot boarding position for Umm Qaşr (9.236).

(Directions continue for Umm Qaşr at 9.231)

Maritime Security Force Checkpoint to Khawr ‘Abd Allāh

9.88

1 **Route.** Vessels departing from the Maritime Security Force Checkpoint (MSF) (9.69) bound for Umm Qaşr (9.236) or Az Zubayr (9.263) may, depending on draught, pass S and SW of Palinurus Shoal (29°37′N 48°48′E) through to Khawr ‘Abd Allāh Outer Anchorage (9.250); or continue farther N to Umm Qaşr pilot boarding position (29°41′N 48°46′E). A dangerous wreck (reported 1992) (29°40′·2N 48°46′·4E) (position approximate) lies E of the N end of the outer anchorage area, and a similar wreck (position approximate) lies 2 miles W. A dangerous wreck (29°39′·2N 48°42′·1E), with a least depth of 7·7 m, lies about 2½ miles W of the N part of the anchorage.

(Directions continue for Umm Qaşr at 9.231)

Side channel

Charts 3773, 1265

9.89

1 An alternative approach to Al Başrah Terminal and Umm Qaşr outer anchorage (9.250) and pilot boarding position (9.251) may be made passing W of Palinurus Shoal (29°37′N 48°48′E) (9.87). The fairway, marked by light-buoys, was established for use by vessels of suitable draught and leads N from Light-buoy A (29°23′·8N 48°46′·0E); light-buoys reported missing (2003).

Al Başrah Oil Terminal

Chart 1265

General information

9.90

1 **Position and function.** Al Başrah (Al Bakr) Oil Terminal (29°41′N 48°49′E) is a crude oil terminal at the head of Khawr al Kafka, ESE of the outer end of Khawr ‘Abd Allāh (9.216).

Approach. The terminal is approached from SSE through Khawr al Kafka; see 9.87.

Traffic. In 2004, the port was used by 291 vessels with a total of 73 151 980 dwt.

Limiting conditions

9.91

1 **Controlling depth.** Depths in excess of 20 m can be carried throughout the approach.

Tidal levels. See 9.106 and *Admiralty Tide Tables Vol 3.*

Density of water is 1·025 g/cm^3.

Maximum size of vessel handled. The terminal can handle vessels of 350 000 dwt; maximum length 365 m on a maximum draught of 21 m.

Arrival information

9.92

1 **Port operations.** Berthing at Berths 1 and 3 is undertaken at low water; Berths 2 and 4 at high water. See Maritime Security Forces (MSF) 9.69.

Notice of ETA required. Send ETA 72 hours prior to arrival at Maritime Security Force checkpoint. See *Admiralty List of Radio Signals Volume 6 (3)* for further information.

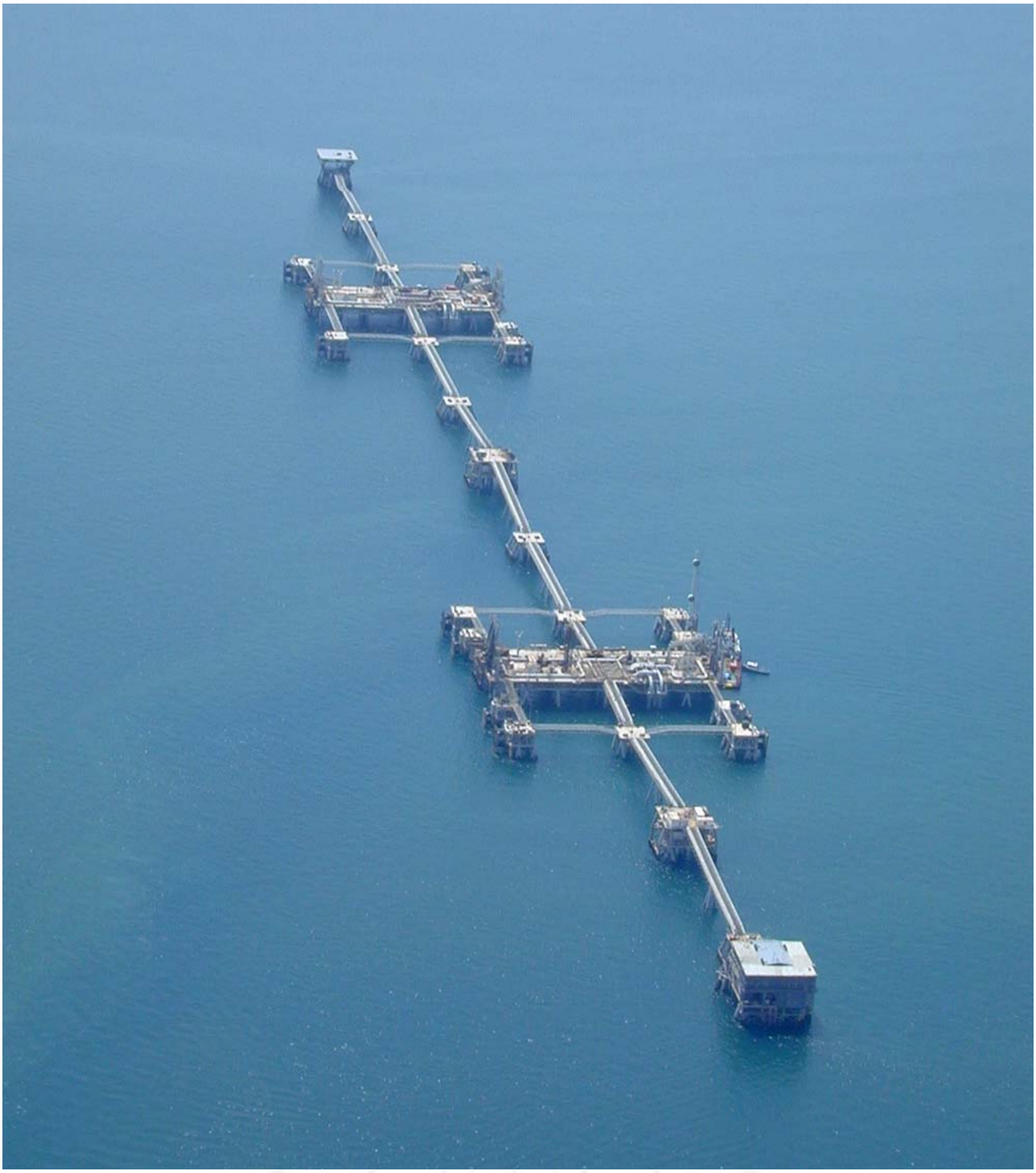
Outer anchorages. See 9.96.

2 **Submarine pipelines.** See 9.225.

Pilotage. Pilots usually board in the vicinity of No 14 Buoy (29°38′·3N 48°50′·2E) (9.87).

Tugs are available.

Prohibited area. A mine danger area lies close W of the terminal. See 9.68.



Al Basrah (Al Bakr) Oil Terminal W (9.90)
(Original dated 2003)

(Photograph – Crown Copyright)

Restricted area. Anchorage is prohibited in the restricted area which surrounds the terminal.

3 **Security Zone.** A security zone extends 2000 m in all directions from the outer edge of the terminal structure. Only tankers and support vessels authorised by the terminal operator or Coalition Maritime Security Forces are allowed to enter the exclusion zone. Additionally warning zones extend 3000 m in all directions from the outer edge of the terminal structure. Vessels are advised to remain clear of the warning zones for all but essential transits. If transit requires entry into the warning zone vessels are advised to contact the Coalition Maritime Security Forces on VHF channel 16.

Terminal

9.93

1 **General layout.** The terminal consists of a steel island structure, 975 m long and 107 m wide, with four berths which can accommodate tankers between 35 000 and 350 000 dwt; lights are exhibited from the terminal. An

obstruction lies off the SW side of the terminal between Berths 2 and 4.

Directions

9.94

1 See 9.87.

Port services

9.95

1 **Supplies:** No fuel oil or fresh water available.

Anchorages

9.96

1 There are two designated deep-water anchorage areas within Khawr al Kafka both of which lie on the NE side of the fairway. Anchorage A (29°25′N 48°58′E), with depths of between 23 and 26 m, is centred about 17 miles SSE of Al Başrah Oil Terminal; a disused submarine cable (9.225) lies across its WSW boundary. Anchorage B (29°35′N 48°54′E), with depths of between 18 and 28 m, is centred about 7 miles SE of the terminal. A temporary anchorage (9.80) lies within Khawr al Amaya about 6 miles ESE of the terminal.

2 **Caution.** Due to present security threats (2005) the use of waiting anchorages is not recommended; tankers should schedule their arrival to the availability of a loading berth.

Prohibited anchorage. See 9.72.

SHATT AL ARAB

GENERAL INFORMATION

Chart 2884

Area covered

9.97

1 This section describes the Shatt al Arab (Shaţţ al ‘Arab), known to the Iranians as Arvand Rūd, from its mouth at the head of Persian Gulf to Al Başrah (30°31′N 47°50′E).

It is arranged as follows:

Khawr al Amaya to Al Başrah (9.104).
Ābādān (9.142).
Khorramshahr (9.167).
Al Başrah (9.190).

Topography

9.98

1 The Shatt al Arab enters the head of Persian Gulf between Khawr ‘Abd Allāh (30°00′N 48°10′E) (9.216) and Khowr-e Mūsá (30°10′N 49°00′E) (9.4); the river is formed by the confluence of the Tigris and Euphrates at the small town of Al Qurnah, 110 miles above its mouth.

2 At its S end the banks of Shatt al Arab are very low and bordered by date palms; closer to seaward the lower parts of the river are thickly overgrown with reeds and coarse grass, the ground being a very soft alluvial mud making any landing difficult. Above its entrance the banks continue very low to above Al Başrah; they are intersected by numerous irrigation canals and, except for the bunds which enclose the plantations, the land is often submerged. Above Al Fāw, land near the river is very fertile with dates, grain, fruit and vegetables all being cultivated; date groves extend up to 2 miles from the river banks, but beyond is desert or swamp. See 9.7.

Traffic regulations

9.99

1 **General regulations.** The following is an extract from general regulations in force when the river was controlled by Al Fāw Control Station on behalf of both the Iraqi and Iranian Authorities.

An inward bound vessel may not enter Outer Bar Reach (9.117) later than 4 hours before high water; when so excluded she must wait until outward bound vessels are clear.

2 A vessel should on no account attempt to enter Outer Bar Reach, if by so doing she will meet or pass another vessel. Vessels are not allowed to enter the dredged channel on a falling tide unless special permission to do so is first obtained from the controlling authority.

No vessel may overtake or pass another vessel proceeding in the same direction in any of the dredged channels, nor in the dredged channel seaward of Qoşbeh Reach Rear Light-beacon (9.123), nor in the river between North House Beacon (9.123) and Jazīreh-ye Mo ‘āvīyeh (9.125).

3 Vessels should regulate their speed so as not to approach a vessel ahead, and proceeding in the same direction, within a distance of 1 mile; this applies to both inward and outward bound vessels

Speed within Shatt al Arab is restricted to 10 kn over the ground. All vessels, provided that it is compatible with safety, are to proceed at slow speed when passing Al Fāw (9.135), Bāvardeh and Ābādān (9.142), and Al Khast (9.125); and also between any positions so marked by notice boards.

4 Outward bound vessels are not permitted to overtake or pass other vessels proceeding in the same direction between Mo ‘āvīyeh Spit (9.125) and the seaward end of the dredged channels.

No vessels within the harbours of Ābādān and Al Başrah, other than small craft, should proceed against the stream at a greater speed than 5 kn over the ground. See 9.189.

5 The controlling authority, or its representative, should be consulted as to the current situation regarding current waterway regulations and any visual signals that may be exhibited regarding traffic movements in the river, or the height of the tide.

9.100

1 **Special signals.** The river has not been systematically dredged since 1980, but dredgers may be encountered working in Outer Bar Reach (Channel) (9.117) or over Kārūn Bar (9.129); the authorities should be consulted for any special signals that may be displayed by working dredgers and for any special rules or regulations to be observed when in their vicinity. Special signals may also be displayed by survey vessels and vessels engaged in underwater operations. Grounded vessels may also be required to display certain visual signals or to make specific sound signals. The controlling authority, or its representative, should be consulted for further information.

Dangerous wrecks

9.101

1 Mariners should navigate with extreme caution within Shatt al Arab and in its approaches, especially outside the designated channels; numerous uncharted wrecks exist, some of which may contain explosive material. See 9.115.

Mine danger area

9.102

1 A mine danger area lies across the approach to Outer Bar Reach. Mariners are warned that no swept route has been established (2004) within this area and that drifting mines may be encountered. See 9.68.

International boundary

9.103

1 Under a 1978 Agreement, the international boundary between Iran and Iraq along Shatt al Arab follows the thalweg (deepest part of the channel). Paragraph 4 of the Protocol Relating to the Delimitation of the River Boundary made provision for changes to the boundary in the event of a shift of Shatt al Arab or its mouth caused by natural phenomena. The boundary shown on the charts is based on the positions quoted in the original 1978 Agreement. However it is evident from the 2002 satellite imagery and the 2000 survey that the position of the main navigable channel, and hence the boundary, has changed. The current position of the international boundary cannot be precisely given, however, a closer approximation to it is probably the median line of the 2000 survey whose limits are shown as pecked lines on the charts. Unfortunately this is only an approximation as the 2000 survey does not precisely define the deepest part of the channel.

2 The border between Iran and Iraq follows the waterway to a position 3 miles above Khorramshahr; NW of this, Iraqi occupies both sides of the river.

KHAWR AL AMAYA TO AL BAŞRAH

General information

Charts 1235, 3842, 3843, 3844, 3845, 3846

Route

9.104

1 From a position about 1½ miles NE of Khawr al Amaya Oil Terminal (29°47′N 48°48′E) the track leads initially NW for about 3 miles to the outer end of the Outer Bar Channel; it then follows Shatt al Arab for 74 miles to Al Başrah (30°31′N 47°50′E) (9.190) passing the ports of Al Fāw (9.135), Khsrowābād (9.139), Ābādān (9.142), Khorramshahr (9.167) and Abū Fulūs (9.215).

Depths

9.105

1 There is a least charted depth (2005) in the fairway of Outer Bar Channel of 2·4 m. See 9.109.

Tidal levels

9.106

1 The times and heights of the tide are very much affected by the prevailing wind. A strong *kaus* will raise the river levels by between 0·6 m and 0·9 m, causing a higher high water, and a higher low water; it will also accelerate the time of high water, a phenomena which is often experienced before the arrival of the wind. A strong *shamāl* will lower the level of the river, the effect not being felt immediately, and retard the time of high water; the low level of the river at low water may well fall below the zero of the tide gauge.

2 Mean spring range over Outer Bar about 2·6 m; mean neap range about 1·1 m. See *Admiralty Tide Tables Vol 3.*

Underwater dangers

9.107

1 Outside the marked channel (9.115) the danger line on the various charts has been used extensively to demarcate areas where underwater shoals and obstructions may exist. This information has been taken from satellite imagery.

River levels

9.108

1 Seasonal variations in the level of the river equally affect high and low water, the highest levels occur in May, June and July when the Shatt al Arab is discharging the combined flood-waters of the Euphrates and Tigris; the lowest levels occur in October and November. At the Outer Bar the variation may be 0·1 m higher from July to September and 0·1 m lower from January to April, and at Al Başrah higher by as much as 0·7 m in May, June and July and lower by 0·4 m in October and November.

2 The dry season commences in the autumn and continues until the spring when the snow inland begins to melt, however, during the winter there are frequent freshets caused by local rains; the chart datum is based on the dry season and varies in different reaches of the river. On a falling tide the water in the river is fresh, even at Al Fāw, except in autumn if the river is low, when it may be slightly brackish.

Silting

9.109

1 Silting occurs in the Shatt al Arab during the flood season and is augmented by the outflow from Rūd-e Kārūn, the largest Iranian river. The rapid rise and fall caused by local rains brings down large quantities of silt which are deposited on Kārūn Bar (9.129) and later carried downstream by the main river into the dredged channels. Heavy silting is reported to occur at intervals of about 5 years.

Due to the heavy siltation rates, depths in the charted channel may have changed; the legend *less water probable* is quoted on the chart in the areas where this is most likely to have occurred.

Pilotage

9.110

1 Pilotage is compulsory for all vessels entering, leaving or navigating in Shatt al Arab and is available for all vessels bound for Iranian ports as far as Khorramshahr; arrangements for vessels bound for ports in Iraq is not known (2005). Pilotage in the river, outside the limits of the specified harbours, is undertaken by river pilots, but within the harbour limits by a berthing pilot if that is the port of final destination; in the case of vessels proceeding through a harbour, without stopping, the river pilot will continue the pilotage.

2 Pilots for Khorramshahr board ESE of Kafka No 1 Buoy (29°50′·3N 48°46′·8E).

See *Admiralty List of Radio Signals Volume 6 (3).*

Traffic regulations

9.111

1 **Satan's Gap.** The local rule for vessels bound in opposite directions approaching Satan's Gap (9.132) is for the vessel stemming the current to give way by reducing speed, or stopping, until the other has passed clear. See 9.99.

Natural conditions

9.112

1 **Flow.** The turn of the tidal stream does not occur at low water as the in-going stream must attain sufficient strength

to overcome the outflow of the river, which varies with seasonal changes, consequently the time and place of the change of direction of the stream varies. During the dry season, when a big tide follows a smaller, the intervening out-going stream is not sufficiently strong to be perceptible. Under normal conditions the out-going stream, about 6 miles above the entrance to Outer Bar Channel, begins about 1½ hours after high water, but during the river flood season, when small tides are experienced, there is little or no in-going stream felt in this position.

9.113

1 **Tidal streams** vary considerably in the Outer Shatt al Arab; they are influenced by the wind and by the river flows, whose outflow peaks between May and July and is at its least during October and November. Though the alignment of the Outer Bar Channel (9.117) has altered somewhat, past observations are still probably valid. The streams were reported to set directly through the channel except during springs when, at either end, there was a strong N set with the in-going stream and a strong S set with the out-going; at neaps these were negligible. At springs the in-going stream continues to flow for about 40 minutes after high water; at neaps it is irregular, but usually continues for about 1 hour after the time of high water. The out-going stream at springs continues for about 30 minutes after low water, and at neaps for about 1 hour. The maximum rates occur at about half tide, during springs the in-going stream can achieve 2 kn and the out-going 3½ kn. Mixed surface and subsurface current directions are common, sometimes they are directly opposed.

2 In Qoşbeh Reach (9.123) the in-going stream commences 1½ hours before high water over the Outer Bar and the out-going about 2½ to 3 hours after. With strong out-going streams an eddy is formed in the S part of the curve of Al Khast Reach (9.128), they also occur off the E corner of Jazīreh-ye Mīnū (30°20′N 48°13′E). Mariners should be aware of the possibility of these eddies and guard against their effect.

9.114

1 **Local magnetic anomaly.** A local deflection of the compass is reported to occur in the vicinity of Satan's Gap (9.132) due to submerged wrecks.

Navigational channel

9.115

1 Recent survey and wreck removal operations have identified major changes to the watercourse throughout the Shatt al Arab and that the main navigational channel has shifted position both within the river and over Outer Bar; also revealed were the unreliability of its navigational aids. A 140 m wide channel, shown on the chart, extends from Outer Bar to Khorramshahr, within this channel all wrecks and obstructions should be accurately charted; however, mariners are advised to use extreme caution when navigating through the waterway. See 9.101 and 9.109.

Directions

(continued from 9.74 or 9.87)

Charts 1265, 3842

Approach to Shatt al Arab

9.116

1 From a position about 1½ miles NE of Khawr al Amaya Oil Terminal (29°47′N 48°48′E) (9.75) the track initially leads NW to the seaward end of the Outer Bar Channel, passing (with positions relative to Khawr al Amaya Oil Terminal):

NE of an obstruction (1 mile NNW) with a swept depth over it of 9·1 m. And:

SW of a stranded wreck (position approximate) (3¾ miles NNE); a buoy (isolated danger) is moored close SE. Thence:

2 NE of a dangerous wreck (position approximate) (2 miles NNE), another dangerous wreck (position approximate) lies 4 cables W; Rooka Light-buoy (black and white can) is moored 6 cables SSW. Thence:

To seaward end of the Outer Bar Channel.

Useful marks:

No 2 Light-beacon (29°48′·2N 48°44′·5E).

Production platform (29°48′·5N 48°45′·7E) (9.74).

Chart 3842

Outer Bar

9.117

1 The track continues WNW through Outer Bar Channel, entered close SSW of Kafka No 1 Buoy (29°50′·3N 48°46′·8E); a dangerous wreck lies about 2¼ cables NE of the buoy. The navigable channel, marked by numbered buoys and light-buoys, leads between Mārakkāt Ābādān and Mārakkāt ʻAbd Allāh, two extensive drying banks which extend SE from Ra's-e Ābādān (29°56′N 48°41′E) and Ra's al Bīshah (29°55′N 48°36′E) respectively, through to Inner Bar (29°56′N 48°37′E). The river entrance between these two points is reported to be radar conspicuous. See 9.105 and 9.115.

2 **Useful marks:**

Old Semaphore Beacon (29°50′·5N 48°42′·6E) standing near the SE end of Mārakkāt ʻAbd Allāh; another beacon (11 m in height) stands about 3¼ cables NE.

No 4 Light-beacon (red pile) (29°52′·8N 48°43′·9E) standing on the outer part of Mārakkāt Ābādān; Eastern Approach Beacon (black framework topmark on pile structure) stands 1¼ miles N and a light-buoy (starboard hand), marking an obstruction, is moored 2½ miles ESE.

3 Inner Bar Rear Beacon (black triangle on black framework tower on pile structure) (29°52′·3N 48°42′·7E) standing NE of the fairway.

No 5 Light-beacon (black pile structure) (29°53′·3N 48°42′·5E) standing on the SE part of Mārakkāt Ābādān.

Western Channel Front Light-beacon (white triangle on beacon) (29°53′·5N 48°41′·8E) and Western Channel Rear Beacon (6 cables NW) both standing on Mārakkāt Ābādān.

4 Outer Bar Reach Rear Light-beacon D (black triangle on framework tower on piles) (29°53′·3N 48°41′·3E) standing on Mārakkāt Ābādān.

Elf Beacon (stump of a black pile structure) (29°52′·2N 48°40′·2E).

Inner Rooka Light-beacon (black triangle on black framework tower on pile structure) (29°54′·2N 48°38′·3E) standing on Mārakkāt ʻAbd Allāh.

5 Outer Bar Reach Rear Light-beacon F (white circle on pile structure) (29°55′·0N 48°37′·8E); stranded wrecks lie on the NE edge of Mārakkāt ʻAbd Allāh NW and SE of the beacon.

South Mast (23 m in height) (29°55′·8N 48°33′·9E) standing about 1¾ miles WNW of Ra's al Bīshah;

before the land extended ESE the mast was near the former position of the point.

9.118

1 **Destroyed marks.** Outer Bar Reach Rear Beacon A (29°50′·7N 48°45′·9E) and Beacon B standing 8 cables WNW, Turning Beacon (29°52′·1N 48°43′·6E), Outer Bar Reach Front Beacon C (29°52′·9N 48°42′·0E), Inner Bar Front Beacon (29°52′·8N 48°41′·8E) and Outer Bar Reach Front Beacon E (29°54′·6N 48°38′·6E). These beacons are charted (2005), but have been reported destroyed.

Chart 3843

Inner Bar to Kabda Point

9.119

1 **Al Fāw Reach.** From Inner Bar (29°56′N 48°37′E) the track follows the surveyed channel, generally WNW, through Al Fāw Reach. Various stranded wrecks lie on both banks of Inner Bar. See 9.115.

Al Fāw Reach Outer Leading Light-beacons:

Front light-beacon (29°56′·4N 48°36′·2E).

Rear light-beacon (6 cables ESE).

2 The alignment (107°) of these beacons, astern, indicates part of the line of the surveyed channel through the outer section of Al Fāw Reach, passing (with positions relative to Al Fāw Outer Leading Front Light-beacon):

NNE of a tide gauge (light) (6 cables W) consisting of a hut on a pile structure, thence:

SSW of a dangerous obstruction (8½ cables WNW), thence:

3 Between the ends of a former causeway (1¼ miles WNW) marked by buoys; a light-beacon (white triangle on white round column on pile structure) (reported destroyed) stands on the N part of the causeway. Thence:

SSW of a stranded wreck (1½ miles WNW); a buoy (starboard hand) is moored close E.

The track continues W.

4 **Useful marks:**

Production platform (29°55′·8N 48°37′·3E) (unlit) standing on the NE side of Inner Bar; a similar structure stands 4½ cables WNW.

A light-beacon (white framework tower with black day mark on pile structure) (29°57′·1N 48°34′·4E), the former rear beacon of the destroyed causeway beacon.

9.120

1 **Al Fāw Reach Middle Leading Light-beacons:**

Front light-beacon (white round beacon) (29°57′·6N 48°30′·7E).

Rear light-beacon (white metal framework tower) (4 cables WNW).

From W of the stranded wreck, the alignment (281½°) of these beacons indicates the N side of the river outside the surveyed channel.

9.121

1 **Al Fāw Reach Inner Leading Light-beacons:**

Front light-beacon (white framework tower) (29°58′·2N 48°29′·4E).

Rear light-beacon (triangle on black framework tower) (9 cables WNW).

From a position NNE of a T-headed jetty (light) (reported destroyed) (29°59′·7N 48°32′·1E) extending N from the S bank, the alignment (290½°) of these beacons indicates a short reach of the channel, passing (with positions relative to Al Fāw Reach Inner Front Leading Light-beacon (29°58′·2N 48°29′·4E)):

2 NNE of a hulk (1½ miles ESE) with a stranded wreck lying close W.

The track continues WNW.

9.122

1 **Al Fāw Inner Reach (ESE) Leading Light-beacons:**

Front light-beacon (white triangle on white metal framework tower) (29°57′·3N 48°31′·5E).

Rear light-beacon (white framework tower black daymark) (5 cables ESE).

Al Fāw Inner Reach (WNW) Leading Light-beacons:

Front light-beacon (white triangle on column on pile structure) (29°57′·9N 48°27′·3E).

Rear light-beacon (black triangle on white framework tower, black top) (common with Qoşbeh Reach Leading Light-beacons) (677 m WNW).

2 From a position NW of the hulk (29°57′·6N 48°30′·9E) the reciprocal alignment (123°) of the ESE light-beacons astern; and the alignment (303°) of the WNW light-beacons, ahead; indicate the S side the river outside of the surveyed channel, passing (with positions relative to Al Fāw Reach Inner Leading Front light-beacon (29°58′·2N 48°29′·4E) (9.121)):

Clear of obstructions (8 cables ESE) including remains of a former bridge; a buoy (port hand) is moored over the NNE end of the S part of these dangers. Thence:

3 Clear of obstructions (9 cables NW) of a former bridge which once connected Al Fāw (9.135) with Iran; a pile stands on the S part of the ruins. Thence:

NE of Al Fāw tanker loading berths (9.138), situated along the SW bank, NW of the town; an obstruction lies close NW of the line of the berths.

The track continues NW.

4 **Useful mark:**

Radio masts stand in the tank farm (29°59′·1N 48°27′·6E), SW of the tanker loading berths.

Qoşbeh Reach

9.123

1 **Qoşbeh Reach Leading Light-beacons:**

Front light-beacon (white diamond on white metal framework tower) (30°00′·0N 48°26′·9E); a second light-beacon (white diamond on white metal framework tower) stands close E.

Rear light-beacon (common rear with Al Fāw Inner Reach (WNW) Leading Light-beacons) (black triangle on white framework tower, black top) (347 m S).

2 After rounding Damāgheh-ye Qaşabeh (30°00′·2N 48°27′·2E) in a position NNW of Al Fāw Reach WNW Front Leading Light-beacon (9.122), the alignment (178°), astern, of Qoşbeh Reach Leading Light-beacons indicates the W side of the river outside the surveyed channel, passing (with positions relative to Qoşbeh Reach Rear Light-beacon (29°59′·9N 48°26′·9E)):

E of an obstruction (8 cables N), thence:

E of a hulk (1 mile N). A light is exhibited from one of three dolphins close N; a mooring buoy lies off the line of dolphins. Thence:

3 W of a masonry pillar (2¾ miles N) standing close off the E bank near date gardens enclosed with low mud walls, thence:

WSW of North House Beacon (metal mast, black and white bands, 14 m in height) (4 miles N) standing on the E bank.

The track continues NNW.

4 **Useful marks:**

A large house (30°00′·1N 48°26′·6E) stands on the W bank opposite Damāgheh-ye Qaşabeh.

Pairs of anchorage beacons (9.137), lettered A to D, stand on the W bank between 1 and 1¾ miles N of Qoşbeh Reach Rear Leading Light-beacon (29°59′·9N 48°26′·9E).

Qoşbeh Beacon (black and white survey beacon, 15 m in height) (30°01′·0N 48°26′·2E) standing about 2 cables W of Anchorage B front beacon.

Qoşbeh Reach to Kabda Point

9.124

1 From a position WSW of North House Beacon (30°03′·8N 48°26′·8E) the line of the surveyed channel trends NW, rounding Chellabi Point (30°08′N 48°23′E), then NE rounding Kabda Point (30°11′N 48°25′E). No overtaking is allowed within this section; see 9.99. The route passes (with positions relative to Brick Kiln Light (30°07′·8N 48°22′·8E)):

Clear of the wreck (existence doubtful) (3½ miles SE) lying in the middle of the surveyed channel, thence:

2 NE of a dangerous wreck (1¾ miles SSE) marked by a light-buoy (green can), thence:

E of Brick Kiln Light (white metal mast, black bands); the white sectors (217°– 224° and 334¾°– 347½°) indicate the line of the river outside the surveyed channel both SSE and NE of the light. Thence:

NW of an Iranian Customs Post (1¾ miles NE) situated near a stone pier at the village of Khazalābād; an obstruction (existence doubtful), with a least depth of 7·9 m, lies in the fairway 4½ cables WSW of the post. Thence:

3 WNW of Khsrowābād Oil Terminal (9.139), thence:

E of Kabda Point (3½ miles NNE).

The track continues N.

Useful mark:

A large house (30°06′·8N 48°23′·1E) stands near the the W bank, about 1 mile S of Brick Kiln Light.

Chart 3844

Kabda Point to Ābādān

9.125

1 **Kabda Reach.** From a position E of Kabda Point (30°11′N 48°25′E) the track through the surveyed channel continues N then NW through Kabda Reach, and SW of the large islands of Jazīreh-ye Mo ‘āvīyeh and Jazīreh-ye Dow Asīr, to Al Khast (Deep Water Point) (30°20′N 48°15′E), passing (with positions relative to Bāvardeh Centre Light (30°14′·6N 48°21′·4E)):

Clear of a dangerous wreck (existence doubtful) (4½ miles SE) lying in middle of the surveyed channel, thence:

2 WSW of Mo ‘āvīyeh Spit (4 miles SE) extending SSE from Jazīreh-ye Mo ‘āvīyeh.

Bāvardeh (SE) Leading Beacons:

Centre beacon (common) (lit, white column, black bands, on piles) (30°14′·6N 48°21′·4E).

Rear (N) beacon (3¼ cables NW).

The alignment (312½°) of these leading beacons indicates the SW side of the river through the SE part of Kabda Reach, outside the surveyed channel, passing:

3 SW of an Iranian Police and Customs Post (2¼ miles SE) situated in the central part of Jazīreh-ye Mo ‘āvīyeh.

The track continues NW.

9.126

1 **Kabda Reach (Bāvardeh Reach) Leading Beacons:**

Front light-beacon (pillar, black and white bands) (30°13′·5N 48°22′·5E); a second beacon (black and white) stands about 1½ cables WNW.

Rear light-beacon (pillar, black and white bands; black triangle topmark) (730 m SE).

The alignment (141°) of these leading beacons, astern, indicates part of the line of the surveyed channel through Kabda Reach, passing (with positions relative to Bāvardeh Centre Light (30°14′·6N 48°21′·4E)):

2 SW of two stranded wrecks (1¼ miles SE) on the NE bank close S of the narrow channel separating Jazīreh-ye Mo ‘āvīyeh and Jazīreh-ye Dow Asīr; a light-buoy (starboard hand) is moored close W of the stranded wrecks. A dangerous wreck lies on the S side of entrance to the narrow channel. Thence:

NE of Kabda (Bāvardeh) Centre Light-beacon.

The track continues NW.

3 **Bāvardeh (NW) Leading Beacons:**

Centre Light-beacon (common) (white column, black bands, on piles) (30°14′·6N 48°21′·4E).

Rear (S) beacon (3½ cables SE).

The alignment (143°) of these leading beacons, astern, indicates the SW side of the river, largely outside the surveyed channel, through the NW part of Kabda Reach, passing (with positions relative to Bāvardeh Centre Light (30°14′·6N 48°21′·4E)):

NE of an Iraqi Police and Customs Post (1½ miles NW) standing on the SW bank; and SW of an Iranian Police and Customs Post (1¾ miles NNW) situated on the central part of Jazīreh-ye Dow Asīr. Thence:

4 NE of the entrance to Nahr az Ziyādīyah (1¾ miles NW), thence

Clear of a wreck (existence doubtful) (2½ miles NW), with a least depth of 9 m, thence:

NE of a submerged wreck (existence doubtful) (4½ miles NW) on the SW of the surveyed channel; another wreck (existence doubtful) lies about 5½ cables NW, close ESE of Al Wasīlīyah. A submerged wreck lies on the NE side of the river between these two wrecks; other wrecks lie off the NE bank, E of Al Wasīlīyah.

5 The track continues NW.

Useful mark:

Anchorage beacons (9.153) situated on the SW bank of the river, SE of Al Wasīlīyah.

Ābādān Reach

9.127

1 The river continues NW, then W, passing SW of the various jetties and quays fronting the port of Ābādān (9.142), and NE of the mooring buoys laid off the opposite bank, passing (with reference to No 3 Ābādān Pier Light (30°20′·3N 48°16′·1E)):

Clear of a drying wreck (existence doubtful) (1¼ miles SE) lying within the surveyed channel, thence:

SW of Ābādān Customs Jetty (8 cables SE) a narrow jetty extending SW from the NE shore; a submerged wreck lies on the opposite bank W of the jetty. Thence:

2 SW of Ābādān Main Quay (9.161) (3 cables ESE); a stranded wreck (existence doubtful) lies near the centre of the surveyed channel opposite the quay and another wreck (existence doubtful) lies on the NE side of the surveyed channel, SE of the quay. Submerged wrecks of floating docks lie off the opposite bank. Thence:

SSW of Ābādān Pier No 3 Light, thence:

NNE of the notice board (slow) (3½ cables WSW) standing on the NNE part of Al Khast on the E side of the entrance of the inlet which connects with Nahr as Sawīyah; an Iraqi Police and Customs Post stands close SW. See 9.153. Thence:

3 Clear of the submerged wreck (existence doubtful) (1½ cables W) lying in the middle of the surveyed channel S of No 1 Murghabi Jetty.

The track continues W.

Useful mark:

Ābādān Oil Refinery (30°20′·5N 48°16′·4E) has numerous chimneys and is conspicuous.

Chart 3845

Ābādān to Jazīrat Umm aţ Ţuwaylah

9.128

1 **Al Khast Reach to Kārūn Bar**. From a position N of the notice board (slow) (30°20′·3N 48°15′·7E) the track through the surveyed channel continues W, then SW and N, through Al Khast Reach first rounding Al Khast (30°20′N 48°15′E), then Jazīreh-ye Mīnū (30°20′N 48°13′E), passing (with positions relative to the Iraqi police station at Qaryat al Qiţ'ah (30°19′·6N 48°11′·7E)):

SE of an Iranian police station (2½ miles ENE) with flagstaff; a notice board (wreck) stands on the opposite bank 3½ cables S. Other notice boards indicate the presence of a submarine pipeline and the restricted area (9.153). Thence:

2 N of an obstruction (existence doubtful) (1¼ miles ESE) close off the S bank, thence:

ENE of an Iraqi police station, with a flagstaff, situated near Qaryat al Qiţ'ah; a small tank farm lies close W. Thence:

E of a hulk (3 cables NNW) close off the S end of the island of Al Qiţ'ah (Jazīrat al Qiţ'ah); a tide gauge stands off the W bank close NNW. An automatic night tidal signal (lit) stands on a four pile structure off the W bank, about 4 cables farther N of the tide gauge. Thence:

3 W of an Iranian Customs House (2¼ miles N), and the police station close N, situated on the S side of the entrance to the small channel separating Jazīreh-ye Mīnū from the mainland; this channel is only suitable for use by boats. Thence:

W of a submerged wreck (existence doubtful) (2¾ miles N); a dangerous wreck (existence doubtful) lies close E. Thence:

W of Ḩarţeh Point (3 miles N); a stranded wreck lies close S of the point and a light-buoy (port hand cross topmark) is moored on the W side of the river opposite the wreck.

The track continues N across Kārūn Bar.

Kārūn Bar

9.129

1 Kārūn Bar extends from about 5 cables above Ḩarţeh Point to just below Haffār Channel; the track over the bar varies considerably, especially at the beginning of the flood season in March or April, when very rapid alterations in the channel may be expected. These alterations prevent the establishment of permanent leading marks; light-buoys laid to mark the channel would be of a temporary nature and moved as necessary. At times when the bar is unsettled a vessel may be stationed there to check depths; when necessary a special pilot may board inward-bound vessels in the vicinity of Ḩarţeh Point (30°22′N 48°11′E) to aid in crossing the bar; tide gauges are situated on the W bank above, below and in the vicinity of the bar.

2 The latest information about the bar depth must be obtained from a competent authority. Vessels arriving with a deeper draught than that permissible are required to lighten into barges off Ḩarţeh Point. See 9.178.

9.130

1 From W of Ḩarţeh Point (30°22′N 48°11′E) the track continues, passing (with reference to Dabbah Mark (30°25′·1N 48°10′·0E)):

E of a dangerous wreck (existence doubtful) (2½ miles SSE) lying on the W side of the surveyed channel, thence:

W of a pumping station standing on a slight promontory on the E side of Kārūn Bar; a submerged wreck lies on the E side of the surveyed channel close N of the station. Thence:

2 E of a notice board (2 miles SSE) indicating the line of a submarine pipeline crossing the river, a similar board stands on the W bank; a drying wreck lies W of the surveyed channel close S of the pipeline, and a submerged wreck lies E of the channel close N of the pipeline. See 9.178. Thence:

ENE of a tide gauge (9 cables SSE); a light-buoy (port hand cross topmark) is moored 2 cables ESE of the gauge. Thence:

3 Clear of the submerged wreck (4 cables SE) lying in the middle of the surveyed channel; a buoy marks its SW part. And:

NE of Dabbah Spit Light-buoy (port hand cross topmark) (3 cables SSE) moored off the outer end of a spit extending SE from Umm ar Raşāş, thence:

NE of Dabbah Mark, and the lights in line standing close S and SW which indicate the entrance to the channels separating Jazīrat Umm al Khaşāşīf, Umm al Libābī, Jazīrat Rumaylah from the mainland. See 9.189. Thence:

4 SW of the entrance to Haffār Channel (6 cables N), an artificial cutting which connects Shatt al Arab with Rūd-e Kārūn and Khowr-e Bahmanshīr. A statue, with a flagstaff close by, stands on the SE side of its entrance; a Customs Office stands on the NW side. See 9.178.

Kārūn Bar to Khorramshahr

9.131

1 The track continues through the surveyed channel, passing (with reference to the boundary pillar (30°27′·2N 48°06′·5E) standing on the E side of Khayyen Canal), passing:

Clear of the submerged wreck (masts) (3 miles ESE); a buoy marks its SW side and wreck-markers stand on the SW bank about 2 cables NW. A shoal depth of 4·8 m lies off the T-headed jetty 3 cables NW. A tide gauge (illuminated) stands near the SW bank close W of the wreck.

2 Clear of the dangerous wreck (existence doubtful) (2¼ miles ESE) lying on the SW side of the channel; wreck-markers stand on the shore close SW. Thence:

SW of the stranded wreck (existence doubtful) (2 miles ESE) lying close off the quay in the NW part of the port area, thence:

SSW of a dangerous wreck (1½ miles ESE) lying on the NE margin of the surveyed channel; a light-buoy (starboard hand) is moored close WSW. Thence:

3 SSW of a second Custom House (1 mile ESE) standing on the W side of the entrance to an unnamed inlet; obstructions lie within the surveyed channel on each side of its entrance. The limits of the surveyed channel, shown on the chart, end in this vicinity.

S of the entrance to Khayyen Canal; a tide gauge stands close off the N shore about 2 cables W. The canal forms part of the international border between Iraq and Iran, its entrance is marked on both sides by boundary pillars; above the canal both banks of Shatt al Arab are in Iraqi territory.

Satan's Gap

9.132

1 Satan's Gap (30°27′N 48°06′E), a narrow passage S of Shatt al Arab aş Şaghīr, leads between the N end of Jazīrat Umm al Khaşāşīf and the E extremity of Jazīrat ash Shamshamīyah. A light-buoy (starboard hand) is moored on the N side of the W end of the gap; another buoy is moored on its S side. See 9.111.

Chart 3846

Jazīrat Umm aţ Ţuwaylah to Al Başrah

9.133

1 Above Satan's Gap the river has not been recently surveyed; it trends W, passing (with positions relative to Abū Fulūs Port Petroleum Products Terminal Pier (30°27′·4N 48°01′·8E)):

N of an obstruction (1¾ miles ESE) lying close off Jazīrat al Baljānīyah and another obstruction off the W end of the island, thence:

N of a tide gauge (3 cables ESE) standing on the W side of the entrance to Nahr al Baljānīyah; a light-buoy (red conical cross topmark) is moored in mid-river N of the gauge. Thence:

2 N of the Port of Abū Fulūs (9.215), thence

N of the entrance to Nahr Abū al Khaşīb (1½ miles W), on the E side of which lies a hulk; mooring buoys are laid off the S bank close W of the inlet. Thence:

N of Labānī (2¼ miles W), a village with a pier, situated on the S bank, S of the W end of Jazīrat Umm aţ Ţuwaylah, thence:

3 N of the entrance to Nahr al Kabābī (4¼ miles W), which enters the river close E of the village of Sayyid Rajup; the village may be identified by a large clump of conspicuous trees. Hulks lie off the S bank, E of its entrance. Thence:

N of the village of Aş Sankar (4½ miles W); mooring buoys are laid off the N bank opposite the village among which are some hulks; two beacons stand on the N shore in this vicinity. Thence:

N of the entrance to Nahr Ḩamdān (6½ miles W); hulks lie off both banks E of its entrance and off the S bank WNW of the village of Yūsufān.

Al Başrah Reach

9.134

1 From NW of Yūsufān the river trends NW along the SW part of Jazīrat 'Ujayrawīyah, passing (with reference to the Presidential Palace (30°29′·8N 47°51′·8E)):

N of the entrance to Nahr Muhayjirān (1¾ miles SE), thence:

Clear of an obstruction (5 cables ESE) lying in mid-river; a hulk lies close NNE off the NE bank. Thence:

NE of the Presidential Palace; a dangerous wreck lies close NW off the SW bank. Thence:

2 SW of a wreck (6 cables NNW) with a least depth of 8·2 m; a light-buoy (green conical) is moored close NW. Thence:

Through to Al Ashshār (9.191) waterfront area; numerous wrecks lie along the bank of the river opposite Ashshār.

Useful mark:

Pairs of measured distance beacons (9.208) on the NE bank, NE of the Presidential Palace.

Al Fāw

Chart 3843

General information

9.135

1 **Position and function.** Al Fāw (Fao) (29°59′N 48°28′E) is situated on the SW bank of the outer part of Shatt al Arab. Its principal importance was Al Fāw Control Station and its proximity to the Iraqi Ports Administration Centre; it was also the repair and stores base for dredgers and the buoyage depot for the Port of Al Başrah. Oil exports from the port have been superseded by Khawr al Amaya Oil Terminal (9.75). The port is reported to have been extensively damaged in recent conflicts and is not operational.

Port Authority. General Company for Ports of Iraq, Basrah Makil, Iraq.

Limiting conditions

9.136

1 **Controlling depth.** The Outer Bar; see 9.105.

Deepest and longest berth. The tanker loading berths can accommodate vessels 206 m long; see 9.138.

Tidal levels. Mean spring range about 2·3 m; mean neap range about 1·0 m. See 9.106 and *Admiralty Tide Tables Vol 3.*

Abnormal water levels. See 9.106 and 9.108.

Arrival information

9.137

1 **Port operations.** Vessels would normally be berthed at the beginning of the out-going stream and sail at the commencement of the in-going.

See *Admiralty List of Radio Signals Volume 6 (3)* for general notes on Iraq.

Inner anchorage. Qoşbeh Anchorage, situated above Al Fāw in Qoşbeh Reach (9.123), is primarily used by vessels waiting to cross the Outer Bar Reach (Channel) (9.117). Four pairs of lettered anchoring beacons stand on the W bank N of Al Fāw. The front beacons (metal structure with triangular topmark) have white identifying letters on black background at their base, the rear beacons (similar structure with cross topmark) stand about 2 cables W. A sectored light is exhibited from each front beacon indicating the extent of the berths which lie about 410 m apart.

2 **Pilotage.** None available; see 9.110.

Restricted area. Anchoring is prohibited in a restricted area which lies between the flagstaff (29°58′·6N 48°28′·8E) and Al Fāw Inner Reach (WNW) Front Leading Light-beacon (1¾ miles NW) (9.122).

Harbour

9.138

1 **General layout.** There are several jetties and shallow basins, including a fishing harbour, SE and close NW of the signal station and flagstaff. Four numbered oil loading berths are located abreast the tank farm (destroyed) each berth had alongside depths of 10·95 m at LW springs.

Khsrowābād Oil Terminal

General information

9.139

1 **Position and function.** Khsrowābād Oil Terminal (30°10′N 48°25′E) is situated on the E bank of the Shatt al Arab about 1 mile above Khazalābād; it comprises an underground tank farm and three small piers.

Limiting conditions

9.140

1 **Controlling depth.** The Outer Bar; see 9.105.

Tidal levels. See 9.106 and *Admiralty Tide Tables Vol 3.*

Abnormal water levels. See 9.106 and 9.108.

Arrival information

9.141

1 **Pilotage.** See 9.110.

ĀBĀDĀN

General information

Chart 3844

Position

9.142

1 The Iranian port of Ābādān (30°20′N 48°17′E) is situated on the NE bank of Shatt al Arab, opposite Al Khast (9.127).

Function

9.143

1 The port is no longer a major oil exporter; products of its refinery are transhipped by coastal tankers to Bandar-e Māhshahr (9.43), but a bunkering service is still maintained. Other port facilities have been run down due to past hostilities.

Port limits

9.144

1 The port limits extend from a line S of Bāvardeh Tank Farm (30°19′N 48°18′E) to a similar line, marked by notice boards (slow), W of Murghabi Jetty (9.127).

Port Authority

9.145

1 National Iranian Oil Co, PO Box 555, Abadan Oil Refining Co, Abadan, Iran.

Limiting conditions

Controlling depth

9.146

1 Outer Bar; see 9.105.

Deepest and longest berth

9.147

1 Berth 7A is 200 m long; see 9.161.

Tidal levels

9.148

1 Mean spring range about 1·4 m; mean neap range about 1·0 m. See 9.106 and *Admiralty Tide Tables Vol 3.*

Abnormal water levels

9.149

1 See 9.106 and 9.108.

Maximum size of vessel handled

9.150

1 Vessels of 3500 dwt can be handled on a maximum draught of 4·2 m.

Arrival information

Port operations

9.151

1 Vessels normally enter Outer Bar Channel 4 hours before, or 2 hours after, high water at Outer Bar. Vessels entering 4 hours before high water usually arrive at Ābādān lower anchorage (9.153) during the the period of the in-going stream and must therefore anchor to await the out-going. Those entering 2 hours after high water at Outer Bar usually arrive during the period of the out-going stream and berth on arrival.

Vessels always berth starboard side to, stemming the out-going stream. Departure is usually 4 to 6 hours before high water at Outer Bar.

Notice of ETA required

9.152

1 ETA should be sent 24 hours prior to arrival at the pilot boarding position ESE of Kafka No 1 Light-buoy (29°50′·3N 48°46′·8E).

See 9.110 and *Admiralty List of Radio Signals Volume 6 (3).*

Lower anchorage

9.153

1 Ābādān lower anchorage is situated below the Port of Ābādān on the SW side of the river; beacons, two pairs for each anchor berth, stand on the SW bank and indicate the limits of each anchorage.

Prohibited anchorage. Anchoring is prohibited in the harbour near any submarine cable or in any position that may obstruct the fairway. A prohibited anchorage area of submarine cables and a submarine pipeline lies across the river in the vicinity of Al Khast (30°20′N 48°15′E); notice boards mark the W limits of the area and the landing positions of the pipeline and some cables.

Pilotage

9.154

1 Vessels bound for Ābādān are not permitted to ascend the river above the lowest jetty off Bāvardeh Tank Farm until a berthing pilot has been embarked; if a berthing pilot is not available vessels must anchor below the port. See 9.110 and *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

9.155

1 Tugs available, but not normally used.

Quarantine

9.156

1 Pratique normally granted on arrival.

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Harbour

General layout

9.157

1 Berths 1 to 26 lie along the NE bank of the river, fronting the town of Ābādān and Bāvardeh Tank Farm.

Development

9.158

1 The port has plans to resume full operations.

Natural conditions

9.159

1 **Tidal streams.** The in-going stream usually commences about the time of high water over Outer Bar and attains a rate of 1½ kn; the time of the out-going stream varies greatly, but usually it attains a rate of 3 kn. Heavy flooding of the Tigris and Euphrates Rivers, frequent during late spring, may increase the rate of the out-going stream to 5 kn; at the height of the flood season the in-going stream will not make at Ābādān.

Climatic table. See 1.145 and 1.149.

Directions for entering harbour

9.160

1 See 9.125.

Berths

9.161

1 Berths 7A–C have alongside depths between 8·5 m and 9·45 m and are used for both general cargo and bunkers; coastal tankers and other vessels requiring bunkers use the tanker berths. The port authorities should be contacted for the latest information.

Port services

Repairs

9.162

1 Minor repairs can be undertaken.

Other facilities

9.163

1 Hospital; no oily waste reception facilities; no garbage disposal facilities.

Supplies

9.164

1 Fuel oil and fresh water available.

Communications

9.165

1 Ābādān Airport NW of town.

Harbour regulations

9.166

1 All vessels should proceed at slow speed within the port limits (9.144).

Ships whistles or sirens should not be sounded in the river off Ābādān; the local fire alarm at Ābādān and Bāvardeh has a similar sound made by siren.

KHORRAMSHAHR

General information

Chart 3845

Position

9.167

1 The Iranian port of Khorramshahr (30°26′N 48°10′E) is situated on the N bank of Shatt al Arab at the junction of the river with Haffār Channel, which links Shatt al Arab with the Rūd-e Kārūn and Khowr-e Bahmanshīr.

Function

9.168

1 Khorramshahr was once the principal port of Iran; it is the seat of the Governor of the Khorramshahr Region of Iran.

Traffic

9.169

1 In 2004, the port was used by 294 vessels with a total of 1 065 652 dwt.

Port Authority

9.170

1 Ports and Shipping Organisation, PO Box 79345, Bandar Chāh Bahār, Iran.

Limiting conditions

Controlling depth

9.171

1 Outer Bar; see 9.105.

Deepest and longest berth

9.172

1 Berths 11 to 13 are the longest, Berth 9 has an alongside depth of 9·2 m; see 9.183.

Tidal levels

9.173

1 See 9.106 and *Admiralty Tide Tables Vol 3.*

Abnormal water levels

9.174

1 See 9.106 and 9.108.

Maximum size of vessel handled

9.175

1 Vessels of 66·9 m in length on a maximum draught of 4·3 m.

Arrival information

Port operations

9.176

1 At present the port is restricted to small vessels due to past hostilities; berthing undertaken during daylight only.

Notice of ETA required

9.177

1 ETA should be sent 24 hours prior to arrival at the pilot boarding position ESE of Kafka No 1 Light-buoy (29°50′·3N 48°46′·8E); on arrival at the pilot station vessels should contact Khorramshahr CRS on VHF.

See 9.110 and *Admiralty List of Radio Signals Volume 6 (3).*

Lower anchorages

9.178

1 Anchorage for up to five vessels may be obtained off Ḩarţeh Point (30°22′N 48°11′E); the anchorage is used by vessels lightening and waiting to cross Kārūn Bar (9.129).

Prohibited anchorage. Anchoring is prohibited in the vicinity of the submarine pipeline laid across the river close above Kārūn Bar, notice boards mark its landing on both banks; and in the area of submarine cables laid across the river between the entrance to Haffār Channel and Umm ar Raşāş (9.130); a notice board on Umm ar Raşāş indicates the area.

Pilotage

9.179

1 A harbour pilot is compulsory and will board on arrival. See 9.110.

See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

9.180

1 Tugs are available.

Quarantine

9.181

1 Health official will board prior to berthing.

Directions for entering harbour

9.182

1 See 9.128.

Berths

Alongside berths

9.183

1 Berths 1 to 9 (not charted) are all reported to be 150 m long, with a maximum alongside depth of 9·2 m at Berth 9; Berths 11, 12 and 13 are all reported to be 180 m long, with a maximum alongside depth of 8 m at Berth 12; a temporary container berth, 110 m long with an alongside depth of 8 m, has been constructed. Further alongside berths lie within Haffār Channel, but their present status is not known.

Anchorage berths

9.184

1 Vessels with draughts of more than 8·2 m normally anchor NW of the entrance to Haffār Channel and work lighters; a wreck (9.130) lies in mid-channel in this area; more anchor berths, marked by beacons, are in Haffār Channel, but their present status is not known.

The port authorities should be contacted for the latest information regarding alongside and anchorage berths.

Port services

Repairs

9.185

1 Minor repairs undertaken.

Other facilities

9.186

1 Hospitals.

Supplies

9.187

1 Fuel oil by barge; fresh water available.

Communications

9.188

1 Airport at Ābādān.

Harbour regulations

9.189

1 Speed must be reduced well in advance of passing the jetties and berths at Khorramshahr; vessels with a draught of more than 4·1 m must not exceed 3·5 kn, smaller vessels of over 100 grt must not exceed 5 kn; see 9.99.

BAŞRAH

General information

Chart 3846

Position

9.190

1 The Iraqi port city of Başrah (Basrah) (30°31′N 47°50′E) is situated on the SW side of Shatt al Arab below Jazīrat al Waqf Maḩammadiyah which lies in the mid-river above Al Başrah Reach.

Function

9.191

1 Al Başrah is the principal port of Iraq; see 9.192. The old walled town of Al Başrah lies about 1½ miles inside Nahr al ‘Ashshār, which enters Al Başrah Reach down river from the main port area. The suburb of Al ‘Ashshār lies between Nahr al ‘Ashshār and Nahr al Khandaq and is the principal business area; Al Ma‘qil is the shipping centre.

Port limits

9.192

1 The Port of Başrah includes all Iraqi parts of the Shatt al Arab, from Outer Bar Reach as far as the stone beacon at Nahr ‘Umar, about 15 miles above the city. It also includes the ports of Umm Qaşr (30°03′N 47°56′E) (9.236), Az Zubayr (30°11′N 47°53′E) (9.263), the tidal inlet N of these two ports and the Iraqi waters of the foreshore between Umm Qaşr and the entrance to the Shatt al Arab.

Traffic

9.193

1 In 2004, the port was used by 1 vessel with a total of 3 664 dwt.

Port Authority

9.194

1 General Co for Ports of Iraq, Basrah Ma‘qil, Iraq.

Limiting conditions

Controlling depth

9.195

1 The Outer Bar; see 9.105.

Deepest and longest berth

9.196

1 The container berth is 250 m in length with an alongside depth of 10 m.

Tidal levels

9.197

1 Mean spring range about 0·9 m; mean neap range about 0·4 m. See *Admiralty Tide Tables Vol 3.*

Abnormal water levels

9.198

1 See 9.106 and 9.108.

Maximum size of vessel handled

9.199

1 The port has handled vessels of 171 m in length, but size limited by Kārūn Bar.

Arrival information

Port operations

9.200

1 The berthing of sea-going vessels is carried out during daylight only and under suitable tidal conditions. A berthing pilot boards off the mouth of Nahr al Khawrah (30°30′·6N 47°51′·1E); if required vessels anchor in this area to await daylight, or suitable tidal conditions. A vessel bound for Al Ma‘qil wharfs, not carrying dangerous cargo, is boarded by a berthing pilot at Jubaylah Anchorage (9.201), about 1 mile below the berths; if required to wait it then moors to two anchors laid up and down stream. Vessels were usually berthed bows up river to the out-going stream, the in-going being frequently weak or absent altogether.

Anchorage

9.201

1 Jubaylah Anchorage lies upriver from the bulk grain berth (9.206), opposite the mouth of Nahr al Jubaylah; mooring buoys are laid off the SW bank between the anchorage and the Naval Base.

Lower anchorage. The section of the river downstream from the port, near the mouth of Nahr Abū al Fulūs (9.215), is one of the recognised anchorages of the Shatt al Arab.

Prohibited anchorage. See 9.202.

Submarine cables

9.202

1 Anchoring is prohibited in the vicinity of the submarine cables laid across the river above the pontoon bridge connecting Al ‘Ashshār with At Tannūmah, and the cable about 1 mile up river; landing places are marked by notice boards.

Pilotage

9.203

1 None available; see 9.110.

Tugs

9.204

1 Tugs are available.

Quarantine

9.205

1 A port health officer boards on arrival.

Harbour

General layout

9.206

1 Al Ma‘qil Wharf, NNW of the Naval Base, has fourteen deep-water berths with a continuous frontage of about 1½ miles and alongside depths between 8·2 m and 9·1 m. The Naval Base and associated berths lie between Al Ma‘qil and the bulk grain wharf situated near some grain silos about 1 mile downriver; the grain wharf has an alongside depth of 8 m. The status of Muftīyah Oil Depot, close SE of the grain wharf, is not known due to obstructions off the berth. There are numerous other berths for lighters and local craft; mooring buoys are laid in various points along the river above Abū Fulūs (9.215).

Ferries

9.207

1 Ferries cross the river above the pontoon bridge from positions on both sides of the mouth of Nahr al ‘Ashshār to a point on the E bank.

Measured distance

9.208

1 A measured distance of 1847·7 m, marked at each end by beacons, lies off the NW corner of Jazīrat ‘Ujayrawīyah on a line of bearing of 139½°.

Natural conditions

9.209

1 **Tidal streams.** The rate of the streams varies with the seasons, from February to June the out-going stream, accelerated by the freshets due to the melting of the snow in the mountains, may attain a rate of 4 kn, while the in-going stream may be entirely overcome by the out-going current. During the dry season, from September to December, the rate of the out-going stream varies between 2 and 3 kn and that of the in-going stream between 1 to 2 kn.

2 **Local weather.** The climate is considerably drier than that of Persian Gulf and the heat less oppressive.

Climatic table. See 1.145 and 1.148.

Directions for entering harbour

9.210

1 See 9.133.

Port services

Repairs

9.211

1 There is a floating dock of 4000 tonnes capacity and a ship yard and slips at Al ‘Ashshār.

Other facilities

9.212

1 Hospital; de-ratting exemption certificates issued; floating cranes.

Supplies

9.213

1 Fuel oil and fresh water, but the current availability (2005) is not known.

Communications

9.214

1 Başrah Airport situated above Al Ma‘qil.

Abū Fulūs

General information

9.215

1 **Position and function.** Abū Fulūs (30°27′N 48°02′E) is a small port situated on the S bank of the Shatt al Arab about 10 miles below the Port of Başrah at the mouth of Nahr Abū al Fulūs; it consists of a river wharf and a petroleum products terminal and handles mainly general cargoes.

Traffic. In 2004, the port was used by 34 vessels with a total of 109 267 dwt.

Port Authority. The port is administered by the Port of Başrah.

2 **Berths.** The fertiliser wharf can accommodate vessels of 182 m in length, the jetties 171 m, on a maximum draught of 8·8 m.

KHAWR ‘ABD ALLĀH

GENERAL INFORMATION

Chart 2884

Area covered

9.216

1 This section describes Khawr ‘Abd Allāh (Khor Abdullah) from Al Başrah Oil Terminal (29°41′N 48°49′E) to Az Zubayr (30°11′N 47°53′E).

It is arranged as follows:

Khawr al Kafka to Umm Qaşr (9.220).
Umm Qaşr (9.236).

Topography

9.217

1 Khawr ‘Abd Allah is entered between Jazīrat Būbiyān (29°50′N 48°10′E) a large, low and barren island, partly covered at high water which forms the SW side of the estuary, and the mainland NE. Both sides are composed of low alluvial land, which at times can be difficult to see; parts are covered with reeds and grass, and shallow flats extend a considerable distance offshore.

Mine danger areas

9.218

1 Mine danger areas lie on both sides of the outer approach to Khawr ‘Abd Allah. Mariners are warned that no swept routes have been established within these areas.

Former mined area. A former mined area lies across the approach to Khawr ‘Abd Allah between the mine danger areas; see also 9.68.

Depths

9.219

1 A Rapid Environmental Assessment (2003) has been conducted of most of this area with the intention of locating unknown dangers, the nature of this survey means that previously charted shoals could not be disproved, and they are still included. Mariners are warned to keep strictly to buoyed channels.

KHAWR AL KAFKA TO UMM QAŞR

General information

Charts 1235, 1238

Route

9.220

1 From the vicinity of Umm Qaşr pilot boarding position (29°41′N 48°46′E) the track leads initially WNW for 26 miles between Mārakkāt ‘Abd Allāh (9.117) and Jazīrat Būbiyān (9.217) to the outer end of the dredged channel through the NW part of Khawr ‘Abd Allāh; it then continues for another 12 miles to Khawr Shityānah (9.233) from where it follows the course of the river to Umm Qaşr (9.236) and Az Zubayr (9.263).

Depths

9.221

1 Depths in the approaches to Khawr ‘Abd Allāh are irregular with shoals of less than 10 m; see Palinurus Shoal (9.87). In 1990 the channel from No 16 Light-buoy (29°53′·0N 48°20′·0E) to No 25 Light-buoy (30°01′·7N 49°09′·5E) was dredged to 12·5 m; thence to Umm Qaşr to 13·2 m. Maintenance dredging was not continued until limited operations commenced in 2003 with the intention of achieving an initial uniform channel depth of 9 m; later increasing to 13 m.

2 In 2003 it was reported that large deep draught vessels navigating in Khawr Sakaa (9.233) may encounter shallow water effect; the use of a bow tug from the vicinity of No 26 Light-buoy (30°01′·7N 48°07′·3E) is recommended for all inbound single screw vessels over 7 m draught. As depths other than charted may exist mariners should consult the local authorities for the latest information on depths and controlling draughts.

Pilotage

9.222

1 Pilotage is compulsory except for designated vessels; pilot boards in the vicinity of 29°41′N 48°46′E between Al Başrah Oil Terminal and No 1 Light-buoy, 4 miles W.

See *Admiralty List of Radio Signals Volume 6 (3).*

Traffic regulations

9.223

1 **Restricted area.** Anchoring is prohibited in the submarine pipeline area which lies over Mārakkāt ‘Abd Allāh (9.117) on the NE side of the outer approach to Khawr ‘Abd Allāh and the SW side of the approach to Shatt al Arab. The area extends SE from a tower (29°54′·9N 48°32′·3E) on the mainland enclosing Khawr al Amaya Oil Terminal (29°47′N 48°48′E) and its pipelines; see 9.225 and 1.17.

Prohibited anchorage. A prohibited anchorage area surrounds the Al Başrah Oil Terminal (29°41′N 48°49′E); see 9.72.

Maritime Security Forces

9.224

1 See 9.69 and *Admiralty List of Radio Signals Volume 6 (3).*

Submarine cables and pipelines

9.225

1 A submarine pipeline is laid from the shore to Al Başrah Oil Terminal (29°41′N 48°49′E), passing close outside the SW edge of the restricted area (9.223); see 1.17.

Disused submarine cables lie from the W side of Mārakkāt ‘Abd Allāh through the outer approach to Khawr ‘Abd Allāh, passing SW of Al Başrah Oil Terminal, to the head of Persian Gulf.

Natural conditions

9.226

1 **Tidal streams.** The out-going stream at the N end of Khawr ‘Abd Allah has been observed to attain a rate of about 3 kn; in the narrower sections of the channel at the N end of Khawr ‘Abd Allah and in Khawr Shityānah (9.233) as far upriver as Umm Qaşr it has been reported to attain 6 kn.

Currents. Though little is known about the current regime in Khawr ‘Abd Allah they are influenced by the tide, wind and, particularly in this area, by the river conditions. It is believed that the current sets S to SE from February to July due to freshwater outflow from the river which is greatest between May and July and least during October and November. During the dry season from September to December the current is believed to set from E to W across the entrance.

International boundary

9.227

1 The international boundary between the State of Kuwait and Iraq generally follows the line of Khawr ‘Abd Allāh (9.216), Khawr Shityānah and Khawr Sakaa (9.233) before passing S of Umm Qaşr.

Aids to navigation

9.228

1 Aids to navigation in Khawr ‘Abd Allāh and up the river as far as Umm Qaşr are reported to be unreliable. Night passage is not possible and should not be attempted.

The low alluvial plains on both sides of the estuary have few landmarks which can be used for fixing; DGPS may provide an effective aid to navigation in these waters.

Channel buoyage

9.229

1 Though in 2003 work commenced to reinstate the channel some buoys may still be missing, out of position, unlit and not indicating the deepest water. In bad weather the buoys in Khawr ‘Abd Allah are liable to break adrift; see 9.3.

Mine danger areas

9.230

1 Mine danger areas lie on both sides of the dredged channel through Khawr ‘Abd Allāh NE of N20 Light-beacon (29°56′·8N 48°14′·5E); SSW of the channel in the vicinity of Warbah Spit (9.232); and in Khawr Shityānah across the dredged channel in the vicinity of No 29 Light-buoy (30°02′·2N 48°05′·5E) and No 28 Light-buoy, 2½ cables S. Mariners should contact the controlling authority for the latest safety information.

See 1.7 and *Annual Summary of Admiralty Notice to Mariners No 6*.

Directions

(continued from 9.87 or 9.88)

Khawr ‘Abd Allāh

9.231

1 **Outer channel.** From the pilot boarding position (29°41′N 48°46′E), the track leads WNW through the outer approach channel, marked by light-buoys (lateral), passing:

NNE of a dangerous wreck (position approximate) (reported 1992) (29°42′·0N 48°42′·0E) lying 1¾ miles WNW of No 1 Light-buoy (port hand) (29°41′·4N 48°44′·0E); mooring buoys are laid between 1 and 2 miles NNE of the light-buoy close off the mine danger area (9.68). Thence:

2 SSW of a dangerous wreck (29°43′·8N 48°41′·2E) lying about 1 mile NNE of No 3 Light-buoy (starboard hand), thence:

NNE of Athan Shoal (29°44′N 48°35′E) with a least depth of 2·7 m, thence:

SSW of the two dangerous wrecks (29°45′·8N 48°35′·1E) lying close NNE of track, thence:

NNE of Fasht al Ayk (29°46′N 48°30′E), a long detached bank of hard sand which dries near its NW end, thence:

3 Clear of the four wrecks (29°48′·9N 48°28′·8E) which lie close to track. Two, with least depths over them of 3·8 m and 4 m respectively, lie close ENE of No 10 Light-buoy (port hand); two dangerous wrecks (positions approximate), one with a mast visible, lie close NNE of No 11 Light-buoy (starboard hand). A stranded wreck lies about 1 mile N of track in this vicinity. Thence:

NNE of Fasht al Qayd (29°47′N 48°26′E), a long detached bank which dries near its NW end, separated from Jazīrat Būbiyān (9.217) by Khawr al Qayd; N23 and N24 light-beacons (green) stand on the WSW side of the bank. Thence:

4 NNE of Ra’s al Qayd (29°48′N 48°22′E), the E extremity of Jazīrat Būbiyān which may be identified by a ruined fort standing about 2½ miles S of the point; a radio mast stands between the fort and the point. Thence:

SSW of a dangerous wreck (29°51′·3N 48°24′·5E), thence:

NNE of a dangerous wreck (position approximate) (29°51′·0N 48°23′·0E), thence:

SSW of the dangerous wreck (mast) (reported 2003) (29°52′·9N 48°21′·5E) lying about 3 cables S of the S end of Atlassi Shoal, which has a least depth of 4·2 m near its N end.

5 **Useful mark:**

A tower (29°48′·1N 48°38′·6E) stands on the outer part of the shoal water extending SE from Mārakkāt ‘Abd Allāh within the restricted area (9.223); other towers stand 7 cables NNW and 1½ miles N respectively.

9.232

1 **Inner channel.** The track continues NW through the dredged channel, marked by light-buoys (lateral), passing (with positions relative to N18 Light-beacon (29°58′·6N 48°11′·7E)):

NE of a wreck (7¼ miles SE), with a least depth of 7 m; a light-buoy (special) is moored close E. Thence:

NE of N22 Light-beacon (red) (6¾ miles SE) standing on the edge of the drying bank off the NE side of Jazīrat Būbiyān; a stranded wreck lies on the bank 1¼ miles NW. And:

2 SW of a stranded wreck (7 miles ESE), thence:

NE of N20 Light-beacon (red) (3 miles SE) standing on the edge of the drying bank. Mine danger areas (9.230) lie on both sides of the dredged channel in this vicinity. Thence

NE of the stranded wrecks (1¾ miles E) lying close SW of the channel margin, these wrecks are considered to be particularly hazardous and a wide berth is recommended; another stranded wreck lies between the hazardous wrecks and N18 Light-beacon. Thence:

3 SSW of a combined light-beacon and tide gauge (white, triangle topmark) (2 miles N); a stranded wreck lies close WNW, thence:

NNE of Warbah Spit (2 miles NNW), a drying spit which extends about 1¾ miles E from the E extremity of Jazīrat Warbah (9.234); a beacon stands on the drying bank off the E end of Jazīrat Warbah. A mine danger area (9.230) lies on the SW side of this section of the dredged channel. Thence:

SSW of a dangerous wreck (position approximate) (reported 1990) (2½ miles N).

Khawr Shityānah and Khawr Sakaa

9.233

1 The track continues generally W, then N, within the dredged channel marked by light-buoys (lateral), through Khawr Shityānah, Khawr Sakaa and Khawr Umm Qaşr,

passing (with positions relative to Ra’s Baḩrah (30°00′N 48°00′E)):

Between 28 and 29 Light-buoys (port and starboard hand) (4¾ miles ENE) where mine danger areas (9.230) encroach into the channel limits, thence:

SE of a dangerous wreck (position approximate) (2¾ miles NE) lying on the NW edge of the channel margin, thence:

2 S of Ra’s Baḩrah and through to the harbour pilot boarding position SSE of Jazīrat Ḩijām, in the vicinity of No 33 buoy (starboard hand) (1¾ miles W); three stranded wrecks lie N of the channel and W of the point. Thence:

Through to the port area of Umm Qaşr.

Side channels

Khawr Būbiyān

9.234

1 **Description.** Khawr Būbiyān (29°58′N 48°05′E) which from its entrance in Khawr ‘Abd Allāh leads WSW between Jazīrat Warbah, a mostly low and flat island covered with reeds and coarse grass which nearly covers at high water springs and SE gales, and Jazīrat Būbiyān (9.217). The channel, marked by light-beacons and a light-buoy (N cardinal) on the S side of its E entrance, meets the head of Khawr aş Şabīyah (9.235) in the vicinity of Umm ash Shejar. An obstruction (29°58′·2N 48°05′·2E) lies in the central part of the channel near the middle of the fairway. A pier, from which a light is exhibited, extends S from the E end of Jazīrat Warbah; there is a Coastguard station close W of its head and a U.N. post E.

Charts 3773, 1235

Khawr aş Şabīyah

9.235

1 **Description.** Khawr aş Şabīyah (29°50′N 48°02′E) is a narrow channel, used by boats, which separates Jazīrat Būbiyān from the Kuwait mainland and leads to Umm ash Shejar at the head of Khawr Būbiyān. From S the channel is approached through Al Hilaybī which leads WNW, from N of Jazīrat Faylakāh (8.347), to its S entrance between Ra’s al Barshah (29°35′N 48°12′E) and Aş Şabīyah 1½ miles WSW; both the entrance, which is encumbered by a number of shoals, and fairway are marked by light-buoys and light-beacons. A power station with two chimneys (199 m in height; obstruction lights) stands close S of Aş Şabīyah; a small harbour, close ENE of the power station, is entered between breakwaters (lights). Al Maghāsil Boatyard (29°45′N 48°05′E) lies on the W side near the middle of the channel. Būbiyān Bridge, with a vertical clearance, of 20 m crosses the S end of the channel; lights indicate the fairway under the bridge.

UMM QAŞR

General information

Chart 1238

Position

9.236

1 The Iraqi port of Umm Qaşr (30°03′N 47°56′E) is situated on the W bank of Khawr Umm Qaşr.

Function

9.237

1 The port is the main general cargo port for Iraq.

Port limits

9.238

1 The port lies within the limits of the Port of Başrah; see 9.192.

Approach and entry

9.239

1 The port is approached through Khawr ‘Abd Allāh (9.216) and entered through Khawr Shityānah, Khawr Sakaa and Khawr Umm Qaşr.

Traffic

9.240

1 In 2004, the port was used by 353 vessels with a total of 3 836 910 dwt.

Port Authority

9.241

1 General Co for Ports of Iraq, Basrah Makil, Iraq.

Limiting conditions

Controlling depth

9.242

1 Dredging is taking place (2005) in Khawr ‘Abd Allāh with the intention of achieving a channel depth of 13·4 m. A recent survey of the channel from No 5 Light-buoy (starboard hand) (29°44′·4N 48°37′·8E) to Az Zubayr has revealed many changes in depths, which are subject to frequent changes, together with new wrecks and obstructions. Mariners should navigate with extreme caution and seek assistance and information from the port authorities, and consult the latest *Admiralty Notices to Mariners*.

Deepest and longest berth

9.243

1 Berth 4 is the longest at 220 m; see 9.259. The controlling authority should be contacted for latest information on berth status and alongside depths.

Tidal levels

9.244

1 Mean spring range about 4·2 m; mean neap range about 2·4 m. See *Admiralty Tide Tables Volume 3.*

Abnormal water levels

9.245

1 At lower low water the tide level has been reported (2003) to be 1 m less than expected.

Density of water

9.246

1 The density of the water is 1·025 g/cm^3.

Maximum size of vessel handled

9.247

1 Largest ship recently handled (2005) was 48 000 dwt on a draught of 13·2 m.

Arrival information

Port operations

9.248

1 Vessels bound for Umm Qaşr and Az Zubayr should contact the port control on VHF channels 16, 12 or 8 for the latest details concerning navigation in Khawr ‘Abd Allāh; reporting procedures have been established for all vessels which should report inbound and outbound when passing No 23 Light-buoy (starboard hand) (30°00′·1N 48°12′·7E) and No 34 Light-buoy (port hand) (29°59′·8N 47°59′·8E). See 9.242 and Maritime Security Force (9.69).

Umm Qasr – River berths (9.253)
(Original dated 2003)

(Photograph – Crown Copyright)

Notice of ETA required

9.249

1 Send ETA 72 hours prior to arrival at Maritime Security Force checkpoint; and 48, 24 and 12 hours prior to arrival to Umm Qaşr Port Control. See *Admiralty List of Radio Signals Volume 6 (3).*

Outer anchorages

9.250

1 Anchorage may be obtained in the designated anchorage area (29°39′N 48°45′E) about 3½ miles SW of Al Başrah Oil Terminal (29°41′N 48°49′E). An obstruction, with a least depth of 17·7 m, lies in its NW corner, and a disused submarine cable (9.225) crosses its SW corner. Temporary anchorage (9.80) may be obtained in Khawr al Amaya, other anchorages are available in Khawr al Kafka (9.96). See 9.68 and 9.218.

Holding anchorage. A holding anchorage is situated about 1 mile NE of N18 Light-beacon (29°58′·6N 48°11′·7E) in depths of over 10 m; inbound vessels may expect to leave the anchorage about 4½ hours before high water. An alternative pilot boarding position lies within the anchorage. Note the dangerous wrecks (9.232) about 1 mile ESE of the anchorage position.

2 **Prohibited anchorage** see 9.72.

Pilotage

9.251

1 Pilotage is compulsory except for exempted vessels. The channel pilot boards between Al Başrah Oil Terminal (29°41′N 48°49′E) and No 1 Light-buoy, 4 miles W; or in the holding anchorage (9.250). Harbour pilot boards in the vicinity of No 36 Light-buoy (30°00′·0N 47°58′·00E) in Khawr Umm Qaşr. See *Admiralty List of Radio Signals Volume 6 (3).*

Tugs

9.252

1 Tugs are available; under normal circumstances they will meet inbound vessels in the vicinity of No 33 Light-buoy.

Harbour

General layout

9.253

1 River berths, numbered 1 to 9, front Khawr Umm Qaşr opposite Jazīrat Ḩijām. Umm Qaşr Basin, with a turning basin at its head, is entered N of No 9 Berth and includes the container terminal; all the berths lie along its SW side.

Development

9.254

1 Development was in progress (1990) on a second smaller basin about 1 mile N of the main basin.

Natural conditions

9.255

1 **Tidal streams.** The out-going stream is strong, attaining a rate of 4 kn.

Local weather. Heavy squalls can be experienced without warning especially during the late afternoon.

Principal mark

9.256

1 **Landmark:**

The grain silos (30°02′·1N 47°56′·7E), standing W of the entrance to Umm Qaşr Basin, are conspicuous.

Directions for entering harbour

9.257

1 See 9.233.

Berths

Anchorage

9.258

1 Anchorage may be obtained in the river off the port by vessels up to 100 m.

Alongside berths

9.259

1 Berths 1–8 front Khawr Umm Qaşr and form the main port area which is about 1 mile long with depths alongside between 5 and 7 m. Berth 9 is an L-shaped jetty serving a cement silo complex close off the N end of the main quay; a drying area exists alongside the berth, also wrecks, thought to have large amounts of unexploded ordnance on board and in their vicinity, lie close off the berth hindering access. The Ro-Ro Berth is operational.

2 Berths 10–21 lie along the SW side of Umm Qaşr Basin, depths are variable; again there are numerous wrecks, with unexploded ordnance on board and in their vicinity, hindering access to many of the berths. The basin is reported (2003) to have silted significantly; an unmarked entry channel, 150 m wide, has a reported least depth of 4·9 m.

Port services

Facilities

9.260

1 Medical services available; deratting exemption certificates issued; cargo handling equipment available; shore power, telephone and garbage disposal services not available (2003).

Supplies

9.261

1 Diesel and fuel oil available (road tankers); fresh water (road tanker); provisions available.

Communications

9.262

1 Basrah International Airport.

Az Zubayr

General information

9.263

1 **Position.** Az Zubayr (30°11′N 47°53′E) is situated on the W side of Khawr Az Zubayr about 11 miles above Umm Qaşr.

Port limits. The port lies within the limits of the Port of Başrah; see 9.192.

Approach. The port is approached through Khawr Az Zubayr passing E of Umm Qaşr; see 9.239.

2 **Dangerous wrecks.** Numerous wrecks lie in this reach of the river, but the precise locations of many are not known and mariners are advised to proceed with extreme caution. Certain wrecks in the area may also contain unexploded ordnance; the stranded wreck (30°09′·3N 47°54′·0E), close S of No 11 Buoy (starboard hand), is

Az Zubayr (9.263)

(Original dated 2003)

(Photograph – Crown Copyright)

awash at chart datum and is considered to be particularly hazardous; it should be given a wide berth.

Unexploded ordnance. An unknown amount of unexploded ordnance is likely to exist in Khawr as Zubayr.

3 **Traffic.** In 2004, the port was used by 79 vessels with a total of 942 298 dwt.

Port Authority. See 9.241.

Limiting conditions

9.264

1 **Controlling depth.** See 9.242.

Deepest and longest berth. The main quay is about 1 mile long. The controlling authority should be contacted for latest information on berth status and alongside depths.

Tidal levels. See 9.244.

Density of water See 9.246.

Arrival information

9.265

1 **Port operations.** All channel buoyage between Umm Qaşr and Az Zubayr is reported missing (2005); see 9.248.

Tugs available.

Harbour

9.266

1 **General layout.** The port has eleven numbered river berths fronting Az Zubayr; it was reported (2003) that alongside depths ranged from less than 1 m to 5·3 m; many of the berths being occupied. An LPG terminal, comprising of two jetties with mooring dolphins, is situated on the W bank of Khawr Az Zubayr between the port and Umm Qaşr. The controlling authorities should be contacted for the latest information.

Port services

9.267

1 See 9.260.

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